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## ABSTRACT

The career orientation program exposes students to specific jobs and occupations within the 15 U. S. Office of Education job clusters and continues the emphasis on seven, broad, student-centered career development components begun in the K-6 portion of the program. A plan is proposed whereby the 15 clusters are covered in the teachers' area of specialty using three types of learning activity: vicarious, simulated, and hands-on. The particular approach used in the guide emphasizes the performance objectives to be developed by students along with activities and procedures for achieving those objectives. Each unit is presented under a specific job cluster and is subdivided into the categories of: developmental area, overall developmental objective, performance objectives, activities, and procedures and/or resource materials. Appended to the 200-page guide are occupational flow charts (100 pages) which present a breakdown of occupations for each of the 15 job-cluster areas. (AG)

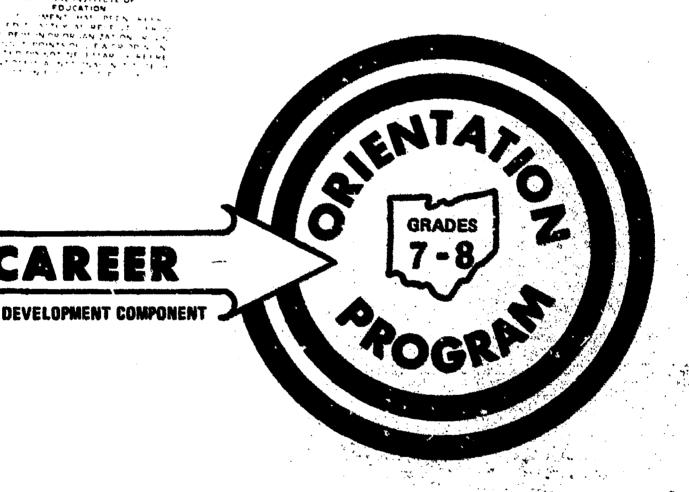


## **OHIO'S CAREER CONTINUUM:**

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Ohio Department of Education Columbus, Ohio 43215

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## CAREER ORIENTATION CURRICULUM GUIDE

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### FOREWORD -

In our emerging technological environment, it is becoming increasingly apparent that more emphasis must be placed on preparing students for career entry. Employment is vital to the economic, psychological, and physical well-being of man. Preparation for employment thus becomes a vital part of the public school system. This responsibility has been identified by leading educators and a resultant program of career education has been developed.

Career education starts in kindergarten and continues through Grade 12 and even into the post-high school years. Much motivation, orientation, exploration, and actual preparation are achieved through a meaningful career education program.

We trust this Curriculum Guide will be of significant value to 7th- and 8th-grade educators in developing quality instructional programs in career crientation.

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Martin W. Essex
Superintendent of Public Instruction



## INTRODUCTION

The career orientation program for Grages 7 and 8 is a part of the total career development process from kindergarten through Grade 12. The primary purpose of this program is to provide students with an orientation to careers open to them. Through numerous and varied activities, students examine their own abilities and interests as well as learn about career opportunities and the nature of various careers.

We believe that career orientation should be a part of the curriculum of every 7th- and 8th-grade class in Ohio. We hope to reach this goal as funds become available.

This curriculum guide has been written by successful teachers, coordinators, and administrators who are currently involved with on-going programs. We gratefully acknowledge the work of the following educators: James Black, Parma City Schools; Ellin Caldwell, Toledo City Schools; Kay Fannin, Dayton City Schools; Grace Mayes, Akron City Schools; Wayne Minnick, Cincinnati City Schools; Jan Poncar, Warren City Schools; James Stickley, Mad River Green School District; Henry Wilkins, Cleveland City Schools; and Jama Roman, Toledo City Schools. State staff assistance was provided by R. D. Balthaser, Linda Keilholtz, and Dr. Earl Kantner.

We believe this guide will be of much value in identifying specific student abilities to be developed in your career orientation program and in providing ideas for developing those abilities as you incorporate career orientation into your curriculum.

It may be noted that the approach taken by the authors was not lesson plan development, but rather, one of identifying student abilities in regard to career orientation. We believe the classroom teacher has the ingenuity along with ideas presented herein, to plan the necessary lessons which will develop the desired abilities needed by students.

We trust this guide will be of significant value in the development of quality Career Orientation programs in Ohio.

Byrl R. Shoemaker

Director

Division of Vocational Education
Ohio Department of Education

R. Shoemaker



## Career Orientation Guide, Grades 7-8

This Curriculum Guide has been developed for those persons interested in implementing career orientation programs as well as for those persons involved in on-going programs. Relevant information is included for school administrators, career orientation directors, and coordinators, as well as for teachers in the classroom.

The guide was developed by people with career education experience, including class-room teachers, program coordinators, and administrators. The writing committee was dedicated to developing a curriculum guide that was detailed enough to be of significant value, yet brief enough to be usable.

## Suggestions for Use

While every school, every committee, and every individual will develop his own plan of usage, one plan for using this guide is:

- (1) Secure guides for all persons concerned with developing career orientation programs.
- (2) Plan sufficient time on an individual basis to study:
  - The overall concepts of career education (Chapter I)
  - Basic structures of 7-8 grade career orientation (Chapter II)
  - Procedures for program implementation (Chapter III)
- (3) Organize groups of individuals on a special interest basis (as instructional areas) to discuss relevance to them.
- (4) Hold in-service education sessions to-
  - Review rationale for career orientation (all involved must understand the philosophy of the program).
  - Review the implementations suggested by the committee.
  - Develop the suggestions into a program which will be accepted by the group.
- (5) Implement a meaningful program
- (6) Evaluate periodically and re-direct as needed



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## CHAPTER I

INTRODUCTION TO CAREER EDUCATION



## **CHAPTER I**

## THE CAREER EDUCATION CONTINUUM

Career Education is a concept designed to provide students with the necessary information and developmental experiences to prepare them for living in society. It combines the efforts of home, school, and community and reaches from pre-school through adulthood.

In Ohio, the CAREER DEVELOPMENT PROGRAM is that part of the total Career Continuum Program designated K-10, including Career Motivation from K-6, Career Orientation from 7-8, and Career Exploration from 9-10. These programs prepare the student to make choices for vocational education or pre-professional education in grades 11-12 (or age 16).

A total career education program consists of the following phases:

- 1. A total Family Life Program within the school curriculum with special emphasis for discovantaged people to help improve the care and motivation of pre-school children and assure a more positive impact of the home on the needs of school-age youth.
- 2. A Career Motivation Program for all youth in kindergarten through Grade Six which develops a positive attitude toward the world of work, inspires respect for all work, and creates a desire to be a part of the world of work.
- 3. A Career Orientation Program in Grades Seven and Eight which provides all youth the opportunity to become aware of the many occupations open to those who prepare for them.
- 4. A Career Exploration Program in Grades Nine and Ten, or ages fourteen and fifteen, which provides all youth with the opportunity to examine and gain firsthand experiences with several career opportunities consistent with individual interests and ability.
- 5. A. Career Preparation Program for youth age sixteen and above which includes:
  - A. a comprehensive vocational education program which provides job skills and technical knowledge and develops work habits and attitudes in preparation for employment; and
  - B. a comprehensive pre-professional education program which provides knowledge and foundations in preparation for professional education beyond high school.
- 6. A Career Training, Retraining and Upgrading Program for out-of-school youth and adults which provides the opportunity throughout adulthood to train, retrain and upgrade skills as technology changes and societal and individual needs and desires dictate.



## **OHIO'S CAREER DEVELOPMENT PROGRAM**

Career education was introduced to Ohio in fiscal year 1970 when the Division of Vocational Education, State Department of Education, following recommendations of a Governor's task force on Vocational and Technical Education, initiated programs of career orientation for 7th and 8th grade students in nine schools in six school districts.

In September 1970, career orientation programs were expanded to include twenty-six schools in eight school districts, serving over 10,000 students; and career education was extended in both directions, downward to the K-6 level for Career Motivation and upward to Career Exploration at 9th and 10th grades thus completing the scope of Ohio's K-10 Career Development Program. Sixteen schools in nine school districts of Ohio, serving over 10,000 students, piloted K-6 Career Motivation programs; and at the same time five high schools serving approximately 5,000 students, initiated Career Exploration programs.

Fiscal year 1972 saw further growth of career education in Ohio. With the addition of state funds, career education programs in ten school districts were "rounded out" to form ten complete K-10 Career Development programs, serving 37,000 students. In fiscal year 1973 over 120,000 students and 4,500 teachers participated in career education in 20 school districts in Ohio.

It is the goal of the Division of Vocational Education, State Department of Education, to reach all of Ohio's two million students by 1980.

In the Ohio Career Development Continuum, five separate time spans have been identified. Each time span has a unique educational program designed for students at that level. The five time spans and the corresponding career education program or programs are as follows:

Time Span (grade level)	Career Education Program
Kindergarten 6th grade	Career Orientation
Post Secondary	Technical Education Adult Education Higher Education

The Ohio career education concept also recognizes that special educational programs are needed for disadvantaged and handicapped students to meet their vocational needs. These programs may cut across all grade levels and move into post-high school areas of training.



## **DESCRIPTION OF COMPONENTS**

## Career Motivation

This career education program is for kindergarten through 6th-grade students. Students develop an awareness that people do work and that one's occupation is an important part of life. Students are also motivated to want to perform some part in the world of work.

The objectives of this program are:

- 1. To make all youth aware of work
- 2. To develop in all youth respect for work
- 3. To motivate all youth to want to take their place in the world of work as productive members of the labor force

#### Career Orientation

This is a career education program for 7th- and 8th-grade students. Students develop a knowledge and attitude about jobs, self, and society. This program is a middle ground between the development of positive motivation about work (Career Motivation) and decisions about jobs (Career Exploration).

## Career Exploration

This is a career education program for 9th- and 10th-grade students. Students will be involved in specific experiences that relate to jobs. This program is unlike the other two career education programs. Career Motivation and Career Orientation, in that it emphasizes decision-making about careers through experiences instead of being limited to developing attitudes and knowledge about work.

The Career Exploration Program goes one step further in the guidance function in that it extends beyond testing, brochures, and college choice. It adds experiences which help students to make decisions about what type of work students will do when they become adults.

The career education program provides a logical base upon which subsequent educational preparation on the 11th- and 12th-grade levels can build as well as post-secondary educational experiences and actual employment.

#### **Vocational Education**

This program equips persons for useful employment. It gives definite purpose and meaning to education by relating to occupational goals, by providing the technical knowledge and work skills necessary for employment, by contributing to the general education needs of its students, and by its uniqueness in not being a discipline but rather cutting across and drawing from a number of disciplines and from the practical work world in the occupations in agriculture, business and office, homemaking, distribution, trade and industrial fields requiring less than a college degree.

## Occupational Work Adjustment (OWA)

This program is designed for 14- and 15-year-old students who are disenchanted with the educational system and the way in which they relate to that system. The program provides opportunities for individuals to develop positive attitudes toward self, toward learning, and toward work. These students are involved in work experiences in the school environment and in private industry. There is no emphasis on manipulative skill development.



## Occupational Labs

This program is a short-term effort to teach single skilled and semi-skilled occupations in an inschool setting. These students have a low expectancy for completing high school. Because of the shortterm nature of the program, no concerted effort is made to develop additional skills in arithmetic, reading, and writing.

## Occupational Work Experience (OWE)

This program is designed for students who are 16-years-old and older. These students are likely to drop out of school without a basic skill for employability. While in this program, students learn basic skills, develop better attitudes, and improve their skills in arithmetic, reading, writing, and decision-making in addition to the development of single skills and semi-skills.

## Pre-Professional Program

This is a high school program preceding entrance into a college curriculum and organized on a potential career base.

## Technical Education

Technical Education is a level of education planned to prepare para-professional persons in two-year post-high school programs to support the professional people in engineering, business, agriculture, distribution, health, social science, and public service occupations. It is primarily concerned with design, development, testing, supervision, and mid-management functions which free the professional to work at his highest level of education.

## College

This is the post-high school educational program which leads to a baccalaureate degree beyond a high school diploma.

## Adult Education

This is an educational program for out-of-school youth and adults which is designed to: (1) upgrade existing skills and knowledge, (2) teach new skills or knowledge resulting from technological change, or (3) provide instruction for a vocational or personal use.

These concepts are summarized visually on page six. This is an attempt to portray the interrelateu, program aspects of the total continum.



CONTINUUM STARTING CONTINUM ST OHIO'S CAREER DEVELOPMENT CONTINUUM OHIO STATE DEPARTMENT OF EDUCATION DIVISION OF VOCATIONAL EDUCATION 1 Adult Ш College Tech 四四 Ó.W.A.**∖** age 16-⊁up Vocational Occupational lab Motivation|Orientation|Exploration|Education **Professiona** 11-12 O.W.E. Preage 14 → up age 14→15 9-10 Students Career Special Programs for Disadvantaged and Well Adjusted Citizen to Provide an Employable **Educational Programs** Students Students Career 7-8 GRADE LEVEL and Handicapped Students Career **K-6** 



## **CHAPTER II**

THE 7-8 CAREER ORIENTATION PROGRAM

## **CHAPTER II**

## THE GRADES 7-8 CAREER ORIENTATION PROGRAM

The second phase of the career development program, Career Orientation, builds upon the K-6 Career Motivation foundation of awareness, appreciation, and motivation. Career Orientation deals more specifically with work in the form of occupations. At the junior high level, the student is exposed to specific jobs and occupations within the 15 U.S. Office of Education job clusters and to continued emphasis on the seven broad developmental areas.

To offer students exposure to the widest range of occupations, the program must permeate the school. The Career Orientation program should be incorporated and taught as a part of the schedules of all instructors in the school, thus including the many areas of experiences necessary for the growth and development of the student.

The structure of the Career Orientation program should be planned and organized by a nucleus of innovative local instructors. The basic concerns of this group will be the review and adoption of the objectives of the program and the development of suggested procedures for implementing the program. Thereafter, the entire staff of the school should be involved in order to develop a program which will be meaningful to the instructor and to the student.

## **OBJECTIVES OF CAREER ORIENTATION**

In developing a quality career orientation program, it is first necessary to determine what is to be accomplished. Eight specific goals have been identified:

- (1) To provide the student with opportunities to develop an awareness of his own interests, abilities, aptitudes, personality, and life aspirations, and the effects of these characteristics on future job choices.
- (2) To provide the student with opportunities to gain exposure to the diversity of careers available in society.
- (3) To provide the student with opportunities for exposure to all levels of employment within career clusters, and to learn what is required to become employed at each level.
- (4) To provide career exposure to meet the needs of all students.
- (5) To provide a knowledge of the economics necessary for participating in a technological society and the economic variation among jobs.
- (6) To provide a knowledge of the kind of education or training required and work traits necessary in obtaining employment and gaining success in jobs and careers.
- (7) To provide an opportunity to develop an attitude that socially useful work has dignity and worth and is necessary as a part of an integrated socioeconomic system.
- (8) To provide an opportunity to develop a decision-making ability concerning career choice that considers all relevant factors.



## CAREER ORIENTATION—A TOTAL CURRICULUM CONCEPT

We are living in an age of advanced technology when the rate of change is multiplying itself at an increasing rate. Where this will lead can only be surmised. The effects it has had on our society are measurable. As man has been able to trade his muscle for some other form of power by using technology, the process has released more members of our society to engage in service pursuits and has created more specialization. This process also created changes in the society, one being that education of the youngsters, in part, was released by the family and given to the public schools, where, in time, it became formalized and was designed to teach group values and special occupations.

Once the children learned their occupations solely from their families. They now learn mainly from formal schooling, and from their families by chance. This, then, suggests a new emphasis on organized career training in our curricula.

There are, of course, some problems in incorporating Career Orientation into any highly structured curriculum, yet most educators agree that the career concept is valid and should be instituted in the total school program. Although most students will not express themselves in so many words, their lack of interest and the drop-out rate tell us that the subjects being taught often show little relevancy to them as individuals. It does society and the students little good for the public schools to graduate students who are not prepared to enter a gainful occupation.

In order for the student to make a career choice from the widest range of occupational information, the Career Orientation program must permeate the entire curriculum. The exposure cannot be treated as an isolated subject, but as one that contributes to the entire motivation and enrichment of the many areas of experience necessary for the growth and development of the student.



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THE SEVEN DEVELOPMENTAL AREAS OF CAREER ORIENTATION

In analyzing the objectives to be accomplished in a career orientation program, it becomes apparent that the scope of the program is quite broad.

It is important to understand that a career orientation program, to be effective, must touch the many aspects of a student's decision-making process. Thus the following seven components have been identified as concepts of career development:

Individual and Environment

World of Work

**Education and Training** 

**Economics** 

**Employability and Work Adjustment** 

**Decision-Making** 

Self

The seven components are not job-centered, but instead are student-centered. All of the concepts are integral parts of the student's personal, educational, and vocational development. A description of each component follows.

## INDIVIDUAL AND ENVIRONMENT

This component is designed to develop an understanding of the individual in relation to his environment. It provides the student with insights into: why people work, how environments keep people producing, the relationship between the individual and work and between the environment and work, how people use and modify environments and their resources. The Individual and Environment component helps the student understand his role in the home, school, community, and work. The major goal is to understand the role each person plays and how he plays that role.

## **WORLD OF WORK**

The World of Work component deals with work values, the variety and nature of occupations, work families and their interdependency, and methods of studying and classifying occupations. A study of World of Work at the junior high level must begin with the local community. Particular consideration must be given new and emerging occupations.



## **ECONOMICS**

This component emphasizes both the earning of income as a worker and the disposition of income (saving, spending, money management) as a consumer. To be successfully involved in our economic system as a wage-earner, the student must understand the operation of the economic system and its effects on man. Economics include knowledge of salary ranges, the costs and benefits of future education or training, the influences of supply and demand on the job market, and an understanding of how productivity and income growth cause changes in employment.

#### EMPLOYABILITY AND WORK ADJUSTMENT

The Employability and Work Adjustment component deals with obtaining and holding a job and advancement in a career. This component can be divided into six skill subtopics including:

- 1. interpersonal relationship skills needed to function in a job,
- 2. adaptability skills needed to adjust to changing jobs and job requirements,
- 3. basic educational skills including reading, writing, and arithmetic,
- 4. job skills to perform entry level tasks, to grow with the job, and to make transfers to other job areas, if necessary,
- 5. job-seeking skills to attain employment commensurate with abilities and training,
- 6. industrial discipline on the job, attitudes and work habits needed to retain and progress in an occupational area.

## **DECISION-MAKING**

Decision-making is, in reality, not a separate component but a process that encompasses all of the developmental areas. In order to make a wise career choice, the goals of the student must be defined and possible alternate solutions considered. After collecting relevant information and examining the consequences of the alternatives, the goals and alternatives should be re-evaluated. The results can then be generalized to meet new problems and situations.

## SELF

Self as subject is the emphasis of this component. It includes how and what a person thinks of himself—his attitudes, perceptions and self-evaluation of his interests, aptitudes, achievements, and values. Some of the activities associated with the self component are group and individual counseling, test interpretation, group guidance procedures and the use of such guidance analysis techniques as diaries, role-playing, open-ended discussions, and self-reports.



## THE FIFTEEN U.S.O.E. JOB CLUSTEPS

In the Grades 7-8 career orientation program, a major emphasis is given to a knowledge and attitude about jobs on a broad basis. This should of course be done on an organized basis and thus the United States Office of Education developed "job clusters" as a means of classifying jobs into a workable pattern. Almost all careers can be classified into one of the following fifteen clusters:

Agri-Business and Natural Resources

Environment

Health

Marine Science

Communications and Media

**Business and Office** 

Marketing and Distribution

**Public Service** 

Transportation

Personal Service

Consumer and Homemaking Education

Hospitality and Recreation

Fine Arts and Humanities

Manufacturing

Construction

In the analysis of each cluster, important points of emphasis are the hundreds of job categories in each and their relationship to each other and to society as well as the varieties of occupations and opportunities available. The contents of each cluster (including sample careers) are included in Chapter 3.

Occupational flow charts which present a breakdown of occupations for each of the 15 job-cluster areas are located in the appendix. They were developed by the United States Office of Education and are useful in identifying the major aspects of each cluster. Teachers may wish to identify jobs in each area as a good career orientation activity.



## **CURRICULUM ADAPTATION**

Before a teacher is willing to re-think an established curriculum with intentions of changing one or more of its aspects in favor of career orientation, he must be shown that the career concepts will benefit the student. Any school system contemplating the addition of career education must provide in service workshops to familiarize its staff with the concepts. Once the staff accepts career education, the next step is to survey the literature and exchange dialogue with other systems now involved in career education programs. Then the system must design a local program that meets local needs and the broader needs of the student who will live in a highly mobile society.

There is no possible way to design a program that will be acceptable to all teachers and students in the state of Ohio. The content and techniques of courses vary with the skills of the teacher and the aptitudes of the pupil. Each seventh- and eighth-grader should be exposed to each of the fifteen U.S.O.E. occupational clusters. One way to insure such exposure is to have teachers choose those clusters that best represent the skills taught in their particular subject. Following is a suggested plan:

### Art

Once the career concept is understood, the first step to providing career orientation in the art curriculum is to survey the present course and courses in other systems that already have career education programs to evaluate what is being done and to determine what must be done to accomplish the career objectives.

There are two clusters, Fine Arts and Humanities and Communications and Media, that seem to present many opportunities that can be correlated to most art studies. It is advisable to study these clusters in Chapter 3 for detailed plans.

## **Industrial Arts**

The industrial arts curriculum is one which is readily adaptable to career education concepts and procedures. Students studying industrial arts at the 7th- and 8th-grade levels are involved in many action activities which are especially relevant to several of the job clusters. Those clusters that are most closely related to the industrial arts curriculum and therefore could be administered by industrial arts are the Manufacturing cluster and the Construction cluster.

## **Home Economics**

The nature of the home economics curriculum makes the Consumer and Homemaking Education cluster especially appropriate to administer through home economics. Consumer economics has traditionally been taught in home economics because that knowledge is needed for proper family financial management. The homemaking aspect of this cluster ties in closely with home management and maintenance, food services, child care, clothing, and other homemaking topics which are normally taught in the home economics curriculum.



## Language Arts

The language arts curriculum is ideal for exploring the fields of Communications and Media with their involvement in literature, writing, public speaking, and the theater. The home economics, industrial arts, and art departments can offer many opportunities for "hands on" experiences that can enrich the language arts program.

### **Mathematics**

Business and Office and Marketing and Distribution are two career clusters that generally relate to the mathematics curriculum.

One mathematics department currently engaged in a career orientation program started off its rationale like this:

For too many years the mathematics curriculum had no specific direction. The student was encouraged to take mathematics because "he would need it some day," or "studying mathematics helps a person mature," or "if one learns mathematics he becomes a better thinker."

Although all of the above reasons sound good and meaningful, they are but "spin-offs" and not direct reasons for any one to study mathematics.

With this rationale, the teachers then studied their curriculum and designed career-related informations and activities to coincide with concepts being taught in an effort to make mathematics relevant for the student. In this program they make use of pre-tests, post-tests, questionnaires, and out-of-class projects as well as consultants and field trips. A successful program depends upon involved students and teachers in real life situations.

#### Music

Fine Arts and Humanities appears to be the career cluster that correlates most closely with the music curriculum. However, as in most cases some areas in other clusters lend themselves to study by the music department. One example is the manufacturing, tuning, and repairing of musical instruments. Because a person can neither sing or play does not keep him from enjoying music; if the person likes music well enough he may want to choose his occupation in one of its support fields.

As our society enters the super-technological age increasing numbers of people will need to develop careers in the service area. Once the decision is made to develop a career orientation approach in the music department, the course content and methods should be reviewed; a survey of current literature and programs should be made; inservice planning sessions should be held during which the original curriculum can be re-written to include the best of each and "tailor-made" to fit the local students needs.

## Physical Education

There are many available occupations related to the physical education field other than the "Professional Athlete" and the student should be made aware of what is available and how to gain the necessary job entry skills. Hospitality and Recreation is the career cluster that is most directly related to typical physical education activities.

The ability to build a good career orientation program is limited only by the imagination of the teacher. Where class time is limited, as in physical education, it may be possible to use other times: after school, weekends, study halls, and lunch periods. Many methods should also be examined. There is a vast quantity of audiovisual material that could be made available through the library. Consultants, assembly programs, or careers clinics also good ways to reach the student.

The special rapport and respect between the physical education teacher and the teenager makes the physical education teacher and the physical education department very important members of the career orientation team.



### Science

Although subject matter and methods vary from school system to school system, the nature of most science curricula lends itself to orientation in the Agri-Business and Natural Resources, Environment, and the Health Occupations career clusters.

The science area is easily related to the career education concept. Many students enjoy "doing" activities and types of occupations prevalent in the career clusters suggested for the science curriculum can easily be simulated. Through committee work, visitation to other career orientation programs and reference to Chapter 3 of this guide, the teacher can find endless ways of adopting the science area to career education procedures.

#### Social Studies

The inclusion of career orientation objectives in social studies can be achieved if the personnel involved understand and accept these philosophies as being essential to the student's needs.

Those career cluster areas that lend themselves best to the social studies curriculum are Public Services and Transportation.

## Special Education

Special education as defined in this guide will include all of those courses designed to meet special physical or psychological needs which cannot be better met in "regular" courses. Generally the number of students taking these courses is small when compared with other courses. Often the teacher must acquire a special certificate in addition to the regular certificate to qualify to teach in the special area.

Basically the process for the development of a career-orientation, integrated curriculum is the same as for other subject areas. This requires in-service training to familiarize the teacher with the objectives of career orientation and to help the teacher develop a skill at writing objectives and lesson plans, an indepth study of the established curriculum, a survey of current literature, materials and programs, and finally the opportunity to write curriculum change that will incorporate the best of these in the revised program.

## Summary

Each instructional area is important to the development of a useful person in our society. Each teacher can design a realistic career information program that will add relevancy to his subject matter. When this is done it is expected that greater student interest will result and a student will be developed who can assume his role as a useful citizen in adult life.



## INSTRUCTIONAL PROCEDURES

Methods of good teaching in career education are quite similar to methods of good teaching in other aspects of the curriculum. Heavy emphasis is put on action, whereby the student takes an active part in the learning process. Three distinct types of learning activities are recommended:

### Vicarious Activities

Students can profit greatly from literature, books, career monographs and publications, and such audiovisual aids as films, slides, tapes, bulletin boards and charts. These materials enable the student to learn about various occupations without actually observing or performing the job tasks. Vicarious experiences broaden the individual's or group's career exposure.

## Simulated Activities

In order to reinforce the student's interest in a particular area, activities involving mock job situations and/or job tasks can be incorporated into the curriculum. Such activities can take the form of simulated work situations, career games, role-playing, computer "counseling," job interviews, individual skill activities, and class projects. The classroom teacher's ingenuity will produce many meaningful simulations. These experiences provide the student with real sensations in a non-real setting, thus allowing the student to become mentally, physically, and emotionally involved.

## Hands-On Activities (Experiencing)

The more students become involved in "doing" rather than "discussing," the less will be the need for concerns about student motivation. Actual experiences in work tasks and part-time job experiences, observations of work settings and guided work experiences provide valuable criteria by which the student can test his interests and abilities.

## **TEACHING MATERIALS**

Although no specific materials are listed in this guide, general resources are. A careful check of the classroom and audiovisual department should uncover most of these materials. There is an unlimited quantity of career education material available today and more is being produced daily. Commercial firms are developing voluminous materials from inexpensive, simple fact sheets to expensive, elaborate programmed courses. All material should be carefully reviewed and selected on the basis of its relevance to the local curriculum goals and design.



## RELATED SERVICES AVAILABLE TO CAREER ORIENTATION

The career orientation program involves numerous services found outside the classroom walls. The enterprising teacher will want to identify each of these services and make effective use of them in well-planned situations. Administration and career orientation coordinators will want to assist in managing the available resources so that implementation by the busy classroom may be expedited.

Following are some of the available services:

Guidance Services

## **DEFINITION OF THE TASK**

A major focus of guidance in Grades 7 and 8 in career orientation is an adequate preparation of students for subsequent educational experiences which will lead to critical educational and career decision-making. The unique needs of students, which are as much social and emotional as they are intellectual, must also be provided for by guidance services at the middle/junior high school level.

## **DIMENSIONS OF THE SERVICES**

- 1. Information Service
  - a. information about educational, career and personal-social concerns
  - b. data for career development
  - 2 Pupil Appraisal and Record Services
    - a. identification of abilities, achievements, and interests
    - b. information about students
    - c. a more complete understanding of self
- 3. Group Guidance Services
  - a. developmental guidance
  - b. group guidance
  - c. internalize information
- 4. Counseling Service
  - a. individual and group counseling
  - b. confidential and open lines of communication
- 5. Consultative Service
  - a. assistance is provided for concerned adults who work together to help students
  - b. clearly identified purposes are achieved
- 6. Parents Conference Service
  - a. the family and the school share responsibility
  - b. parent conferences
- 7. Resource Coordination Service
  - a. coordination of the use of available school and community resources
  - b. referral resources, information resources, and service resources are identified
- 8. Placement Service
  - a. assistance is provided for students in making effective transitions from one level of education to another and from school to employment.
- 9. Evaluation and Planning Service
  - a. follow-up is utilized as a basic research tool
  - b. what happens to students while they are in school and after they leave the school forms the basis for school assessments
  - c. evaluation is conducted to provide facts for the assessment of guidance services

To achieve its guidance services objectives, each school must develop clear definitions of the responsibilities of all staff members who are assigned duties related to guidance program inputs for career orientation.





## LIBRARY SERVICES

The library resource center should provide the physical necessities such as:

- 1. a place to store materials
- 2. a system to find those materials
- 3. a place where individuals can research their problems
- 4. a place where groups can meet to do their research

The librarian should asssit in teacher preparations, class projects, individual studies, and such other activities. The degree of success a career orientation program can achieve will depend heavily upon library services.

The librarian should be aware of and alert teachers to the fact that projects and assignments should be limited to facilities available. An example might be a teacher assignment for fifty students to do a project within a short time when limited resources are available. Similarly, it Lecomes a problem to a company or institution when several hundred students write for the same information at the same time. This action could result in causing a sympathetic institution to limit or stop cooperation with the school system.

#### **COMMERCIAL TEACHING AIDS**

There are many aids for classroom teachers to utilize in implementing career orientation programs. There is much material already and more is being generated each day. Commercial firms are developing vast arrays of items from simple fact sheets to entire programmed courses. There is a great quantity of free and inexpensive materials available. After surveying the items available from the numerous companies, the individual teacher can design a program that can best meet the needs of his students in terms of real needs and interests.

## OTHER LOCAL SCHOOL AND COMMUNITY RESOURCES

There are far too many school and community resources available in every school district to list here. The enterprising teacher will find an unending source of such resources. Examples include: school laboratories, shops and grounds, community agencies for field trips, various resource persons, and numerous common items used in the various careers. In developing a career orientation program, a detailed survey of existing local resources should be made.



## **CHAPTER III**

## IMPLEMENTING THE PROGRAM



## **CHAPTER III**

## IMPLEMENTING THE PROGRAM

As indicated earlier in this guide, the approach taken by the authors was not to write a handbook of lesson plans, but rather to identify the skills (performance objectives) to be developed by students along with activities and procedures for achieving those desired objectives.

It is most important for the reader to understand the organization pattern used in this chapter:

- 1. The chapter is composed of fifteen occupational clusters (color coded for easy reference).
- 2. Each cluster is divided into the seven developmental areas of career education (see page 11).
- 3. Each of the seven developmental areas contains one or more overall developmental objectives, as determined by the writer.
- 4. Each developmental area contains one or more student performance objectives with related activities and procedures.

Simply stated, this chapter helps the teacher to-

- 1. identify what the student should learn (performance objectives) about careers, and
- 2. determine those activities and procedures that will teach the student what he needs to know.

The appendix contains the fifteen occupational flow charts developed by the U.S.O.E. These breakouts of the clusters may be useful to adults as well as students in understanding the various levels and kinds of occupations in each cluster. Teachers may wish to have students research the jobs that are available in the various divisions of the clusters.



## JOB CLUSTER I

## AGRI-BUSINESS AND NATURAL RESOURCES



#### JOB CLUSTER I

## **AGRI-BUSINESS AND NATURAL RESOURCES**

## A. Rationale

Man depends on agriculture and natural resources to provide food, clothing, and other materials used in the production of articles man needs. Students should realize their dependence on agriculture and likewise the interdependence of agriculture and society. They should be aware of the vast number and kind of job opportunities available to them in agriculture and natural resources. Students often think only of production agriculture but opportunities in other areas of agriculture offer many additional employment opportunities and this fact should be stressed.

## B. Agri-Business and Natural Resources in the Curriculum

An introduction to the agri-business and natrual resources cluster can easily be incorporated into several instructional areas with science being the most likely area. Science instructors can use many examples involving agriculture and natural resources; mathematics instruction can include problems involving agriculture which can lead to exploration of careers where these skills are needed; social studies instructors can show the dependence of our society and other societies on agriculture and can lead into opportunities in our present society based on past history or current issues. Language arts teachers can incorporate this cluster into their program through vocabulary, grammar, and literature assignments which will allow the student to look into the agri-business and natural resources industries. In other subjects instructors will find many methods of incorporating this cluster into their curriculum. Competencies in the agri-business and natural resources cluster would include skills in or knowledge of—

- 1. the production and propagation of animals (land and aquatic), animal products, plants and plant products.
- 2. the manufacture, distribution and servicing of supplies used in agricultural production.
- 3. the design, installation, repair, operation and servicing of machinery, equipment and power sources; and the construction of structures and conveniences used in agricultural production.
- 4. the inspection, processing and marketing of agricultural products and primary by-products.
- 5. aspects of greenhouse, nursery, landscaping and other ornamental horticultural operations.
- 6. the conservation, propagation, improvement and utilization of renewable natural resources.
- 7. the multiple uses of forest lands and resources.



## Typical occupations in Agri-Business and Natrual Resources include:

Parts Clerk Farmstead Planner Rural Electric Specialist

Drainage Laborer Rural Carpenter Research Engineer

Parts Saiesman Safety Technician Tiling Surveyor

Cheesemaker Equipment Dealer Irrigation Specialist

Apple Grader Tractor Mechanic U.S.D.A. Inspector

Field Foreman Butcher Quality Control Superintendent

Bottler Lab Technician Food Plant Sanitarian

Canning Machine Operator Oil Extractor Teacher

Park Laborer Arborist Technician Soil Scientist

Game Farm Laborer Golf Course Superintendent Fish Biologist

Fish Hatchery Worker Naturalist Castographic Survey

Technician Aide

Timber Marker Park Ranger Forester

Park Warden Wildlife Manager Air Pollution Control Technician

Farm Hand Farrier Sanitary Engineer

Auctioneer Organic Chemist

Seed Salesman Veterinarian



CLUSTER 1: Agri-Business and Natural Resources

## **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop the understanding that successful careers in agriculture are based on personel interests and abilities in the field of agriculture.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To list five interests needed for a successful career in

agriculture.

## **ACTIVITIES**

- 1.1 Students tour agriculture businesses and interview workers concerning interest areas.
- 1.2 Students view films on career in agriculture and discuss interests needed for particular careers.
- 1.3 Students role-play situations demonstrating interests desirable for various careers.
- 2. To list five abilities needed to succeed in agri-business or natural resources careers.
- 2.1 Students observe workers and identify abilities.
- 2.2 Students do research in Dictionary of Occupational Titles (DOT) or similar publications for information.

- 1.1 Check with coordinator for field trip arrangements.
- 1.2 Check with audiovisual departments for films.

- 2.1 Check with library or guidance office for materials.
- 2.2 Contact local Vocational Agriculture for information.



## CLUSTER I: Agri-Business and Natural Resources

## DEVELOPMENTAL AREA A: Individual and Environment (cont.)

OVERALI. DEVELOPMENTAL OBJECTIVE NO. 2: To develop an understanding that successful careers in agriculture may depend on an individual's stability and integrity as well as his ability.

## PERFORMANCE OBJECTIVES

## The student should be able:

- 1. To list five careers in agriculture where integrity and stability are of utmost importance.
- 2. To compare three careers requiring great stability and integrity with three where these traits are not as important.

### **ACTIVITIES**

- 1.1 Students interview resource persons such as agricultural bankers, livestock dealers, and chemical mixers, and report information to class.
- 1.2 Students present simulations showing problems that can arise in agricultural dealings.
- 2.1 Students study trait lists to identify differences in careers.
- 2.2 Students view films which demonstrate traits and problems that arise.

- 2.1 Consult *DOT* and supplements.
- 2.2 Check with audiovisual department for films demonstrating desirable traits.



## CLUSTER I: Agri-Business and Natural Resources

## DEVELOPMENTAL AREA B: World of Work

OVERALL DEVELOPMENTAL OBJECTIVES NO. 1: To orient students to careers in agriculture in the local area.

## PERFORMANCE OBJECTIVES

## The student should be able:

1. To identify on a local area map of businesses and agencies which hire people in agricultural occupations.

2. To develop a local job opportunities listing for careers in agriculture.

## **ACTIVITIES**

- 1.1 Students visit local business which hire agricultural workers.
- 1.2 Students conduct survey of local businesses and agencies to find out how many people are working in agri-business or natural resources occupations.
- 2.1 Students report to classmates on agri-business opportunities.
- 2.2 Students prepare charts listing local employers.

- 1.1 Arrange field trips with local coordinators.
- 1.2 Provide school paper and envelopes for survey forms.
- 2.1 Check with
  Chamber of Commerce,
  Local Vocational
  Agriculture
  Teacher, the County
  Extension Office and
  similar agencies for
  information.



## CLUSTER I: Agri-Business and Natural Resources

## **DEVELOPMENTAL AREA B:** World of Work (cont.)

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To orient students to the wide variation in careers available in agri-business and natural resources.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To list five careers in agriculture which are in great demand.

- 2. To list at least three careers in each of the following areas:
  - 1. Agriculture Production
  - 2. Agri-mechanics and Equipment
  - 3. Agri-products
  - 4. Horticulture
  - 5. Forestry
  - 6. Environmental Protection
  - 7. Agri-supplies and Services

## **ACTIVITIES**

- 1.1 Students research current literature to determine demand for agricultural careers.
- 1.2 Students tour agricultural businesses and question guides concerning job opportunities and demands.
- 2.1 Students research information to determine careers in agriculture.
- 2.2 Students split into committees and report to class on careers in one area.

- 1.1 Check with library and guidance office to be sure materials are available.
- 1.2 Arrange for field trips with local coordinator.
- 1.3 Notify companies to be toured of information students will request.
- 2.1 Check with guidance office or vocational department for availability of information.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO.1: To introduce students to educational and vocational requirements for careers in agriculture in the local area.

### PERFORMANCE OBJECTIVES

#### The students will be able:

1. To identify educational requirements for ten occupations in agriculture.

# 2. To list ten jobs which are related to agriculture and the required agricultural skills for each.

3. To prepare a career ladder in agriculture based on education and training requirements and showing levels of employment including-

Unskilled Skilled Technician College

#### **ACTIVITIES**

- 1.1 Have speaker or graduate from an agricultural or technical school explain requirements.
- 1.2 Have students select and report on requirements for specific careers.
- 2.1 Students visit agriculture industries and businesses.
- 2.2 Students interview workers to determine skills and training required.
- 3.1 Students conduct study of job levels and levels of education and training for each level.

- 1.1 Ohio Higher Education Notebook.
- 1.2 Obtain entrance requirements for colleges and technical school.
- 1.3 Prepare lists of people in agriculture who can be interviewed.
- 2.1 Arrange for field trips to a variety of agri-business and industries.
- 3.1 Collect career information from guidance office or local sources.



**DEVELOPMENTAL AREA D: Economics** 

OVERALL DEVELOPMENTAL ORJECTIVE NO. 1: To orient students to the economic aspects of careers in agri-business and natural resources.

### PERFORMANCE OBJECTIVES

The students should be able:

- 1. To rate investment necessary to become established in five selected careers in agribusiness or the natural resources field.
- resources field.
- 2. To list average and entry level salaries for at least five careers in agriculture in the student's area of interest.
- 3. To explain orally how careers in agricultural marketing rely on abilities in economics.

4. To list in order the agricultural careers involved in following a natural resource from raw material to finished product.

#### **ACTIVITIES**

- 1.1 Students research individually or in committees the cost of becoming established in these careers.
- 1.2 Speakers from agriculture talk to class concerning investment needed in their job.
- 1.3 Students draw comparison charts to show results of investment study.
- 2.1 Students interview agriculturalists about entry level and average salaries.
- 2.2 Students research agricultural occupational information for salaries.
- 3.1 Students interview agricultural marketing worker, futures market worker or agricultural banker concerning economic principles used in careers.
- 4.1 Students choose different resources, prepare market path and identify careers involved in process.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Check with local extension office, agriculture loan department at bank or Production Credit office for information.
- 1.2 Check local resource list for speakers.
- 2.1 Check resource speaker list.
- 2.2 Check with library and office for information.
- 3.1 Check with coordinator for speakers.
- 3.2 Check with library to place materials on shelves for students.
- 3.3 Consult with economist from local school or college for economic information relating to agriculture.
- 4.1 Provide list of resources for students.
- 4.2 Check with library for information or send for information.



#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquaint students with variations in agricultural careers based on differences in employee skills and daily work changes on the job.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To name ten agricultural careers based on work with data people things
- 2. To identify three careers in agriculture which require contacting and working closely with the public.
- 3. To prepare a written report comparing a career in agriculture which has daily changes to a career in agriculture which has little or no change in daily routine.

#### **ACTIVITIES**

- 1.1 Students review careers in agriculture and categorize them based on involvement with data, people or things.
- 1.2 Students interview workers to find out the type of work they perform.
- 2.1 Students question speakers on "public contact" abilities needed in their careers.
- 2.2 Students prepare lists of agricultural careers which require the ability to work closely with people.
- 3.1 Students research literature to determine careers with great variety in daily procedures and careers with little or no variety.
- 3.2 Students tour agricultural businesses and compare the activities of different jobs.

- 1.1 Check resource file for publications and care monographs.
- 2.1 Contact speakers work in high "public contact" careers.
- 3.1 Provide DOT and supplements.
- 3.2 Check with library for job description materials.
- 3.3 Set up field trips with local coordinator.



#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVES NO. 2: To orient students to decision-making techniques and their application to career choice decisions.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list five factors which he would consider in choosing a career.

#### 2. To choose a sample agricultural career and list typical decisions to be made on the job which compare with typical school or personal decisions.

3. To rate a list of ten careers tarting with those that require a great amount of decision-making skills to those requiring little or no decision-making skills.

#### **ACTIVITIES**

- 1.1 Students discuss decisions to be made in selecting a career.
- 1.2 Students quiz agricultural workers on factors they would now consider in choosing a career.
- 1.3 Students prepare lists of factors to consider and compare lists with fellow students.
- 2.1 Students write a report showing comparison between decisions made on the job with decisions made as a student or family member.
- 3.1 Students research career monographs and career publications to determine level of decision-making skills required.
- 3.2 Students question workers in agriculture concerning their use of decision-making skills.

- 1.1 Check with library for information or decision-making.
- •1.2 Arrange for students to interview workers,

- 2.1 Prepare hand out of typical decisions.
- 3.1 Provide career monographs and publications.



**DEVELOPMENTAL AREA G: Self** 

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To orient the student to careers in agriculture which he feels would match his needs, wants, interests and abilities.

### PERFORMANCE OBJECTIVE

The student should be able:

1. To identify his strengths and weaknesses in terms of a career in agriculture.

#### **ACTIVITIES**

- 1.1 Use interest survey techniques to determine interests.
- 1.2 Students prepare selfanalysis reports in relation to an agricultural career.
- 1.3 Students prepare job charts and compare their interest to various jobs.
- 1.4 Field trips to various agricultural business to point out interesting jobs to students.
- 2.1 Students take ability tests measuring mechanical as well as mental ability.
- 2.2 Student visit classes offering training in agriculture including:
  - 1. in-school classes
  - 2. vocational school
  - 3. technical schools
  - 4. trade schools
  - 5. college
- 3. To list five needs he feels are important to him and see if these needs can be met by a career in agriculture.

2. To assess his own ability and

business or natural resources.

name five opportunities

available to him in agri-

- 3.1 Students discuss basic needs and list their needs in order of importance.
- 3.2 Students list the needs that can be met by a career in agriculture.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Ohio Vocational Interest Survey (OVIS).
- 1.2 "Who Am I" reports.
- 1.3 Set up an interview with school counselor.

2.1 Obtain aptitude and ability tests.

3.1 Use resource persons with several years of experience in agricultural careers.



#### PERFORMANCE OBJECTIVE

#### **ACTIVITIES**

- 3.3 Students interview persons who have been employed in agricultural occupations concerning their satisfaction.
- 4. To identify three careers in agriculture in which he feels he could become a well-adjusted, productive citizen.
- 4.1 Students should develop individual profiles and identify careers which would satisfy them.
- 4.1 Provide students with sample self-profiles and record sheets of interest and ability tests.



JOB CLUSTER II

**ENVIRONMENT** 



#### JOB CLUSTER II

#### **ENVIRONMENT**

#### A. Rationale

Man is becoming more aware of the need for environmental protection because he is now able to see the results of a lack of concern. Air pollution, water pollution, the build-up of waste materials and the depletion of our natural resources are among the problems man has seen come forward as major concerns of this generation. We are realizing that we must work with our environment if we expect to survive on this earth. Many new and exciting career opportunities are developing in this field.

#### B. Environment in the Curriculum

Instructors should have little problem incorporating career information on environment into the science curriculum. Science courses normally include information on water, air, radiation, noise, and waste materials. Natural resources and related career information ties in with each of these areas easily. Language arts courses may include career information on environment through class debates, discussions, term papers, grammar, vocabulary, and literature. Students may explore careers in the environmental area through individual or group projects and information gained may be considered the communications phase of language arts.

Mathematics teachers may introduce career opportunities which require measurement skills, recording skills and formula skills as well as basic mathematical skills. Graphs of air pollution counts, depletion of resources or noise level graphs will show the student careers in environmental protection which require mathematic skills.

Teachers of other disciplines will find much current information available which will help blend information on opportunities in environmental protection into their instructional program.

Typical careers in the Environment cluster include:

Water Treatment Plant Maintenance
Helper
Refuse Collector
Incinerator Operator
Park Helper
Treatment Plant Operator
Air Pollution Control Technician
Noise Measurement Specialist
Waste Water Technician
Sanitarian

Park Ranger Naturalist Wildlife Manager Field Health Officer Biological Technician Aquatic Biologist Sanitary Engineer Forest Ecologist Organic Chemist



#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To realize successful careers in environment are based on interests and abilities in the field of environment.

### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

### PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

1. To list at least five interests needed for careers in environment.

2. To list at least five abilities

ment.

needed for careers in environ-

- 1.1 Students view films showing abilities and interests needed in occupations in environment.
- 1.2 Students listen to speakers who describe interests and abilities needed in various environmental careers.
- 2.1 Students observe workers in environmental occupations and observe abilities needed.
- 2.2 Students check job descriptions in career literature.

- 1.1 Check with audiovisual department for films available.
- 1.2 Check resource file for speakers who work in environmental careers.
- 2.1 Take field trips and make personal visits.
- 2.3 Check with guidance office, library, and other sources for materials.



#### DEVELOPMENTAL AREA A: Individual and Environment (Cont.)

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To realize the application of school subjects to careers in environment as well as to one's present life environment.

### PERFORMANCE OBJECTIVES

The student will be able:

1. To describe in writing the relationship between school subjects and three present and or future jobs in environment.

#### **ACTIVITIES**

- 1.1 Students participate in field trips to discover jobs that have direct correlation to specific school subjects.
- 1.2 Students discuss the usefulness of school subjects in preparing for specific careers in environment.
- 1.3 Students interview a worker in environment to determine need for skills learned in school subjects.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Check with coordinator for list of possible field trips.
- 1.2 Check local resources file for speakers who work in environmental careers.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To introduce students to careers available in the field of environment and environmental protection.

### PERFORMANCE OBJECTIVES

The student should be able:

1. To list ten careers which have developed in the last five years as a result of the environmental emphasis.

- 2. To identify ten jobs in the local area connected with environment.
- To list three trends in employment in environmental protection and explain the basis for these trends in our society.

#### **ACTIVITIES**

- 1.1 Students research recent occupational information to determine newly developed occupations.
- 1.2 Students interview environmental protection workers to determine job opportunities.
- 1.3 Field trips to agencies working in environmental protection.
- 2.1 Students visit local employment agencies.
- 2.2 Students interview employers for job lists.
- 3.1 Students compare the number and types of jobs in environmental protection today with those in existence 50 years ago.
- 3.1 Students research and chart trends in employment.
- 3.3 Students write letters to state and federal agencies requesting information.

- 1.1 Obtain copies of Occupational Outlook Handbook and DOT.
- 1.2 Obtain current government publications in area of environment.
- 1.3 Check local resources file for a list of workers in environmental protection.
- 2.1 Arrange for visits and interviews.
- 3.1 Provide United States
  Department of Labor
  employment information
  for students.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To introduce students to and help them explore the educational and vocational qualifications in the field of environment at the present time and in years to come.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To name the educational requirements for at least three occupations in environmental protection.
- 2. To explain the relationship between what he is currently studying and possible future environmental occupations.

#### **ACTIVITIES**

- 1.1 Students research the educational requirements for careers in which they are interested.
- 1.2 Students question resource speakers regarding the amount of education needed to obtain entry-level jobs.
- 2.1 Students interview persons employed in environmental occupations to discover the usefulness of courses in school.
- 2.1 Students discuss the need for specific courses in various occupations.

- 1.1 Provide technical school and college handbooks.
- 1.2 Check local resource file for brochures on careers in environment.
- 2.1 List of persons employed in occupations dealing with environment.



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become knowledgeable about the economic aspects of careers in the field of environment.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list three aspects of an occupation in environmental protection which involve the knowledge of economics.

#### **ACTIVITIES**

- 1.1 Students discuss occupations in environment in relation to economic factors.
- 1.2 Students interview workers concerning need for economic abilities in their occupation.
- 1.3 Students view films on careers in environment and discuss economic factors represented.
- 2. To list average salaries for at least three careers in environment that are in the student's area of interest.
- 3. To determine economics of preparation education, equipment necessary to enter at least five difficult jobs in environment.
- 2.1 Students research average salaries and prepare comparison charts.
- 2.2 Students interview workers in environment concerning salary levels.
- 3.1 Visit workers in environment and learn of their requirement.
- 3.2 Study career materials for environmental jobs.

- 1.1 Prepare list of economic principles that relate to occupations.
- 1.2 Check resource file for speakers.

- 2.1 Check with guidance office for salary information.
- 2.2 Check with local employment service for facts and figures on salaries.
- 3.2 Secure career literature from library and guidance office.



#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To orient students to differences in careers in environment based on employee attitude and ability to make onthe-job adjustments.

#### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To list five careers in environment which require the ability to meet and deal with the public.
- 2. To compare the five careers above with five careers which do not require a great deal of public contact.
- 3. To prepare a written report on one career which requires few daily job adjustments compared to one career which requires frequent adjustments.

#### **ACTIVITIES**

- 1.1 Students prepare reports on careers which demand that workers possess "meeting the public" abilities.
- 1.2 Students interview workers who hold down occupations which require a great deal of public contact.
- 2.1 Students view film on careers in environment and compare differences in relation to dealing with the public.
- 3.1 Students research job adjustments in careers in environment.
- 3.2 Students interview workers concerning daily changes in their job.

- 1.1 Check with coordinator for career information.
- 1.2 Check local resource file for list of speakers.
- 2.1 Check with audiovisual department for film on environmental careers.
- 3.1 Have copies of DOT and supplements available.
- 3.2 Check resource file for speakers.



#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To evaluate careers in the field of environment on the basis of amount of decision-making ability required.

### PERFORMANCE OBJECTIVES

The student should be able:

- 1. To identify three careers in the environmental field that require little decision-making ability and three that require much decision-making ability.
- 2. To list three decisions to be made concerning the selection of a career in environment which could be affected by decision-making ability.

#### **ACTIVITIES**

- 1.1 In library or guidance office, students research information.
- 1.2 Students compare information presented by various sources, such as U.S. Government and commerical publications.
- 2.1 Students prepare job analysis forms and compare with test results such as OVIS, GATB, or other reliable survey tests.

- 1.1 Notify library and guidance office so materials will be available.
- 1.2 Collect publication and develop in-room library.
- 2.1 Check with guidance department for test results.



#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To develop abilities to choose careers in environment based on decision-making qualities.

### PERFORMANCE OBJECTIVE

The student should be able:

- 1. To list five careers in environment which call for decision-making abilities possessed by the student, and five careers which utilize abilities which are not possessed by him.
- 2. To make decisions on the choice of three careers which fit his interests and abilities and three that do not fit his interests and abilities.

#### **ACTIVITIES**

- 1.1 Students research requirements for careers in environment and compare with their own interests and abilities.
- 1.2 Students are given interest survey tests.
- 1.3 Students confer individually with teacher or guidance counselor on ability level.
- 2.1 Field trips to various places which would show students many levels of occupations in environment.

- 1.1 Check to see if library has material listing career requirements.
- 1.2 Consult DOT and other materials for worker trait requirements.
- 1.3 Teachers or counselors prepare student profiles.
- 2.1 Check with coordinator to set up field trips.



**DEVELOPMENTAL AREA G: Self** 

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To orient students to careers which will match their interests, temperament, and abilities.

### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

### PROCEDURES AND/OR RESOURCE MATERIALS

The students should be able:

- 1. To list five careers which match his individual interests.
- 1.1 Students compare expressed interests with interests as identified by tests such as OVIS.
- 1.1 Check with guidance department for interest test results.
- 1.2 Students compare interests with worker trait information on careers in environment.
- 1.2 Check with library for DOT and supplements.

- 2. To identify five careers in which his temperament would cause problems.
- 2.1 Students develop a profile of their temperaments.
- 2.1 Check with counselor for sample profiles.
- 2.2 Students develop roleplaying situations which display their temperaments in conflicts with career requirements.
- 3. To orally describe one career which matches favorably with his ability.
- 3.1 Student researchs career requirements and matches one career with his personal abilities.
- 3.1 Confer with counselor for ability test results.

#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To orient students to careers in environment which would match their personal qualities.

### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

### PROCEDURES AND/OR RESOURCE MATERIALS

The students should be able:

- 1. To identify his personal abilities and interests.
- 1.1 Students identify needs to be met by a career.
- 1.2 Students discuss the needs that can be met by specific careers in environmental protection.
- 1.3 Students prepare comparisons of their needs and the needs that can be met by careers in environment.
- 1.4 Students visit and interview several persons working in environmental jobs to observe and compare needs satisfaction.
- 2.1 Use standard tests, such as OVIS.
- 2.2 Prepare a self-analysis study.
- 3. To list five careers which require the traits that he identifies as important.

strengths and weaknesses.

2. To identify his personal

- 3.1 Use standard tests, such as GATB.
- 3.2 Prepare a self-analysis study.

- 1.1 Prepare lists of human needs.
- 1.2 Check with coordinator for information that explains the advantages offered by careers in environments.

- 2.1 Teacher leads class discussion on determination, abilities, and interests.
- 3.1 Guidance office administers and interprets tests.



**JOB CLUSTER III** 

HEALTH



#### **JOB CLUSTER III**

#### **HEALTH**

#### A. Rationale

Health occupations constitute one of the largest service occupations clusters in the country. The educational and other requirements for work in the health field are as diverse as the health occupations themselves. The opportunities and demand for workers in this field will increase in direct proportion to increasing demands for health care.

#### B. Health Occupations in the Curriculum

Since occupations in the health field are so diverse, orientation to these occupations can be effectively handled in most subject areas. Vocabulary can be an important part of science classes and the art instructor can assist by handling the illustrative work. In social studies classes, health service needs can be analyzed for amount and kind. In schools where occupational clusters are referred to curriculum areas in their entirety, the health cluster is often covered by the science area.

#### Typical careers in Health include:

Hospital Superintendent

Systems Analyst

Department Heads of Hospital

Personnel Intern

Medical Communicator

Hospital Guide

Hospital Receiving Cler<sup>1</sup> Medical Record Technician

Medical Record Librarian

Medical Librarian Medical Illustrator

Medical Secretary School Physicians Clinical Physicians

Visiting Nurse

L.P.N., R.N.

Hospital Aides

Physicians Assistants

Technicians

Clerical Personnel

Nursemaid Midwife

Child Care Attendant

Psychiatric Aide

House Mother Gynecologist

Pediatrician
Home Attendant

Companion

Practical Nurse

Dental Hygienist Dental Assistant

Dentist, Orthodontist

Oral Surgeon, Oral Pathologist

Pedodontist Prosthodontist

**Dental Laboratory Technician** 

Dental Ceramist Denture Waxer

Dental X-ray Film Assembler Crown and Bridge Technicians

**Pharmacologist** 

Pharmaceutical Bacteriologist

Pharmaceutical Compounding Supervisor

Pharmacy Helper

Pharmacist

Sterile Products Processor

Senior Pharmaceutical Operator

Druggist

Pharmaceutical Salesman Hospital Pharmacist

Bacteriologist

Cytotechnologist

Biologist, Micro-biologist

**Physicist** 

Chemist, bio-chemist Psychiatric Social Worker



#### CLUSTER III: Health

#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To realize that successful careers in health are based on certain interests and abilities.

### PERFORMANCE OBJECTIVES

#### \*The student should be able:

1. To list at least five interests needed for a career in the health field.

#### **ACTIVITIES:**

- 1.1 Show several films depicting health careers to the class.
- 1.2 Have students list the types of interests that they observed in the film.
- 1.3 Invite a team of health workers to talk about their interests.
- 2. To list at least five abilities needed for a career in the health fie! 2.
  2.1 Invite an employment officer from a local hospital to describe the abilities needed for health careers.
  - 2.2 Arrange for students to visit local hospitals, veterinary clinics, doctor's offices, and health clinics to observe the workers and the skills that they need.

- 1.1 Check with local audiovisual department for films.
- 1.2 Consult local resource file for health speakers.
- 2.1 Consult local resource file for speakers and field trips.



#### CLUSTER III: Fealth

#### **DEVELOPMENT AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To identify career opportunities in the health services within the local community.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To name five health career jobs available in his community and specify two requirements for each job.
- 2. To demonstrate ability to find job opportunities using the classified section of the newspaper.

#### **ACTIVITIES**

- !.! Have students visit health agencies and talk with staff.
- 1.2 Students research jobs to learn requirements.
- 2.1 Discuss arrangements of want ads and have students practice finding jobs.

- 1.1 Consult local resource file for health field jobs.
- 1.2 Occupational Outlook Handhook and other related resources from media center.
- 2.1 Provide newspapers for references.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquaint students with educational requirements for jobs in the health services.

### PERFORMANCE OBJECTIVES

The student should be able:

- 1. To name three health jobs which require a high school diploma, and three which require technical training or a college degree.
- 2. To list the training and other qualifications for at least three health service jobs.

#### **ACTIVITIES**

- 1.1 Students research educational requirements for various health careers.
- 1.2 Students divide into teams to practice classifying jobs.
- 2.2 Each student researches three vocations.
- 2.2 Invite persons in health careers from local health agencies to speak to students concerning job requirements.

- 1.1 Occupational Outlook

  Handbook, DOT and related
  career materials.
- 1.2 Consult local resource file for speakers.
- 2.1 Use materials in library or guidance office, such as leaflets, films, and so forth.



#### CLUSTER III: Health

#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand the economic levels of different careers in health occupations, and how they effect health costs.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list the salaries of three health service workers and indicate the source of money for these salaries.

# 2. To determine the costs to become prepared for three different-level careers in health occupations and the salary level which may be reached.

#### **ACTIVITIES**

- 1.1 Invite a representative from a hospitalization insurance company to explain health care costs.
- 1.2 Students visit finance office of local hospitals to discover costs of various occupations and services and how these costs are determined.
- 1.3 Students make graphs to illustrate health care costs.
- 2.1 Students visit health occupations personnel and discuss preparation and salary.
- 2.2 Review career information literature.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult local resource file for speakers.

- 2.1 Provide information in library and guidance office.
- 2.2 Arrange field trips for students.
- 2.3 Have resource persons visit class.



#### **DEVELOPMENTAL AREA D: Economics (Cont.)**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To understand how health service costs are determined and how each individual is affected.

### PERFORMANCE OBJECTIVES

The student should be able:

1. To list the salaries of three health service workers and indicate the source of money for these salaries.

#### **ACTIVITIES**

- 1.1 Invite a respresentative from a hospitalization insurance company to explain health care costs.
- 1.2 Students visit finance office of local hospitals to discover costs of various services and how these costs are determined.
- 1.3 Students make graphs to illustrate health care costs.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult local resource file for speakers.



#### **DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To broaden the student's knowledge of the skills necessary for getting and holding a job in the health field.

### PERFORMANCE OBJECTIVES

#### ACTIVITIES

### PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To name five local agencies or institutions which hire health workers.
- 2. To accurately complete a job application form.
- 3. To identify and list the characteristics of a good resume.
- 4. To determine the job characteristics of at least three jobs in health occupations and relate them to his personal abilities and interests.

- 1.1 Students search yellow pages of telephone directory and write application letters to local health agencies.
- 2.1 Students practice completing job applications and discuss techniques.
- 3.1 Students write resumes and discuss.
- 4.1 Students visit jobs of possible interest and evaluate.

- 2.1 Provide sample job application forms from local firms.
- 4.1 Teacher requires written summary of findings.
- 4.2 Contact speakers for appearance in class.

#### **DEVELOPMENTAL AREA F: Decision-Meking**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop the student's ability to evaluate jobs in keeping with interests and aptitudes.

### PERFORMANCE OBJECTIVES

The student should be able:

- 1. To choose a job area, gather facts related to that job and determine whether he might be happy in that job.
- 2. To demonstrate ability to compromise by researching two other job areas that he esteems less highly.
- 3. To evaluate three jobs in terms of amount of decision-making ability required.

#### **ACTIVITIES**

- 1.1 Construct a schema of job attributes which students can use as a checklist in individual research.
- 1.2 Role-play various health occupations of an emergency call nature to portray life styles.
- 2.1 Construct situations which demonstrate how compromise is useful.
- 3.1 Students discuss with onjob employees.
- 3.2 Students evaluate their personal abilities to make decisions.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Provide career publications, films and other aids.
- 1.2 Arrange field trips or afterhours conference with workers in the industry.

3.1 Field trips and/or resource persons.



#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To enable each student to examine and analyze his temperament and personality traits in relationship to career choices.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To describe his personality and match it with three health occupations.

2. To determine whether his interests, aptitudes, and abilities are commensurate with those of practicing health workers.

#### **ACTIVITIES**

- 1.1 Students, working in teams, describe their own and each others' personalities, using adjectives.
- 1.2 Have students research job personality compatibility.
- 1.3 Have students develop skits and role-play persons in various jobs.
- 2.1 Students complete various interest inventories and achievement tests and have results interpreted.
- 2.2 Invite people in health occupations to speak to students about their work and interests.
- 2.3 Students research selected occupations in the school library.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Occupational Outlook

Handbook and Occupation
monographs.

- 2.1 Teacher determines which tests are relevant.
- 2.2 Teacher arranges for appropriate films and other desirable informational sources.



**JOB CLUSTER IV** 

MARINE SCIENCE



#### **JOB CLUSTER IV**

#### MARINE SCIENCE

#### A. Rationale:

Man is continually searching for new and better ways to supply his needs. As these needs have become more exhaustive, he has turned to the sea. The result has been the birth and growth of a large group of marine science occupations which are designed not only to meet present-day needs, but to explore the endless potential of the sea and beneath the sea.

Employment has grown rapidly in the marine sciences in the past decade and is expected to continue to make a steady growth. Much of this growth is spurred by federal government-sponsored research and development. It would seem that marine science has as much future as an occupational area as it does as a future 'cornucopia.'

#### B. Marine Science in the Curriculum:

Integration of the study of marine science occupations into the curriculum should pose no serious problems. The implications for science are obvious—water, sealife, pollution control, mineral reserves, and plant life. The art instructor could be immensely helpful by working hand-in-hand with the science instructor. In home economics, preparation and sale of seafood with all of the business implications could be studied. Instrumentation used in shipping and fishing offers avenues for instructional exploration in mathematics.

Social studies teachers might well view marine science in terms of units on sociological and economic problems of water pollution, the fishing industry, untapped food sources, and effects of an economical desalinazation process. Occupations are available in these areas.

These are merely suggestions. Teachers of other disciplines should have no trouble conceptualizing ways of integrating this cluster.

#### Typical careers in Marine Science include:

Marine Science Manager

Ship's Master Marine Engineer Port Engineer Chief Mate

Officers
Marine Engineer

Inspector
Foreman
Chief Steward
Personnel Specialist

Mates Assistants

Unlicensed Crewmen

Microbiologist

Fishery Bacteriologist

Zoologist Ichthylogist Botanist

Plant Taxonomist Laboratory Supervisor Fish Icer

Fish-cake Maker Fish-cleaner Fish-cutter

Food-fish culturist Game-fish Culturist Shellfish Grower Frog Grower Plant Nematologist Plant Cytologist Sponge Hooker Fish Culturist

Fish Hatchery Foreman Hatchery Superintendent

Pisciculturist
Diving Fisherman

Marine Mechanic/Repairman

Deck Engineer

Motorboat Mechanic Marine Engine Machinist

**Boatswain** 



Laboratory-Sample Carrier
Marine Biologist
Aquatic Biologist
Marine Ecologist
Net, Seine, Trap Fisherman
Line Fisherman
Miscellaneous Gear Fisherman
Fish-bin Tender
Fish Broiler
Electronic Specialist

Seaman
Deckhands
Captain
Longshoreman
Quartermaster
Physical Oceanographer
Geological Oceanographer
Mineralogist
Chemical Oceanog phers
Marine Geologist
Marine Meteorologist
Oceanographic Engineers



#### DEVELOPMENTAL AREA A: Individual and Environment

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help the student understand the relationship of marine science careers to the individual and his environment.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list ten marine science occupations and the effect they have on our way of life.

- 2. To name three specific marine science occupations and describe in detail what each does.
- 3. To describe three trends in environmental concerns and the implications for employment patterns in the next ten years.

#### **ACTIVITIES**

- 1.1 After asking students to list jobs that are related to marine science, have them research these and other related jobs to learn about the contributions of marine science.
- 1.2 Show a movie depicting one of the marine sciences.
- 2.1 Have teams of students interview marine science workers to determine job possibilities.
- 2.2 Show several films on marine science careers and have students create a list of the careers shown.
- 3.1 Show films on environment.
- 3.2 Have company representatives speak to class on ecology.
- 3.3 Have students write to appropriate legislators.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult audiovisual department for materials.

- 3.1 Secure resource persons.
- 3.2 Secure list of legislators from local state or national politics offices.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become knowledgeable about marine science careers and their interdependence with other careers in our society.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To name at least five marine science occupations that could be found in Ohio.

2. To explain orally the interdependence of five marine science occupations.

#### **ACTIVITIES**

- 1.1 Each student researches a marine science occupation and reports findings to class.
- 1.2 Class takes a field trip to local acquarium.
- 1.3 Invite persons employed in marine science jobs to be interviewed by students.
- 2.1 Class will discuss the interdependence of jobs.
- 2.2 Groups of students can draw charts showing interdependence of jobs.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult local resource tile for field trips and resource persons related to marine science.

2.1 Secure films for student information.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students learn about the variety of marine science occupations and their training and educational requirements.

### PERFORMANCE OBJECTIVES

The student should be able:

1. To name three marine occupations and describe their educational requirements.

2. To describe the training required for at least three economic (salary) levels of occupations.

#### **ACTIVITIES**

- 1.1 Students research various marine science occupations and report to class.
- 1.2 Students will prepare scrapbooks of occupations with education and training requirements listed.
- 1.3 Students make posters describing occupations and exhibit them in classes and corridors.
- 2.1 Students interview employees in management as well as labor levels and discuss requirements.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Obtain educational requirements from US Governmental office.
- 1.2 Provide DOT and related references.

2.1 Teacher arranges for student trips or personal visits.



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To realize the importance of marine science careers to the economy and become familiar with the salary levels of careers in marine science.

	PERFORMANCE OBJECTIVE		ACTIVITIES		ROCEDURES AND/OR ESOURCE MATERIALS
l. To ma tril	tudent should be able: name three careers in trine science that con- bute greatly to our nation's nomy.	1.1	Students graphically illustrate marine occupations and resultant economic implications.	1.1	Provide governmental and other related publications.
tha to	describe orally three ways at individuals contribute the economy as a result of rine science.	2.1	Students develop a list of items that people may put chase that are directly related to marine science.		
		2.2	Create a collage of pictures of marine science occupations and the products produced.		
sar five	relate investment neces- y to become established in e different careers in rine science.	3.1	Students interview employees on the job.	3.1	Teacher arranges visits.
car	list salaries for at least five eers in management, mid-nagement and labor levels.	4.1	Students interview employees on the job.	4.1	Teacher arranges visits.



#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To recognize the importance of good human relations and job adjustments in getting and keeping a job in Marine Science.

**ACTIVITIES** 

### PERFORMANCE OBJECTIVE

#### The student should be able:

## 1. To list five personal do's and five don't's pertaining to getting and keeping a job.

2. To conduct himself properly

3. To identify the job require-

4. To determine the extent of

ferent careers in marine

versatility and adjustment

ability required in five dif-

ments for at least five careers

in an oral interview.

in marine science.

science.

# 1.1 Students should become familiar with job performance standards through research and discussion.

- 1.2 Invite a personnel director or public relations person to talk to students about holding a job.
- 2.1 Have skits to demonstrate "right" and wrong" interview behavior.
  - 3.1 Use public relations person mentioned above.
  - 4.1 Students observe employees and record different tasks performed.

- 1.1 Provide adequate reference materials.
- 1.2 Consult local resource file for speakers.
- 3.1 Secure information from films and career literature.
- 3.1 Secure information from films and career literature.
- 4.1 Arrange for case study of employees by students.



## CLUSTER IV: Marine Science

## **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop in the student an understanding of the decision-making process as it relates to choosing a career.

# PERFORMANCE OBJECTIVE

# The students should be able: 1. To indicate on a check list

criteria he would use in making a decision concerning a marine science career.

# 2. To rank five careers in marine science in order of amount of decision-making ability required.

### **ACTIVITIES**

- 1.1 As a class or in small groups, students will work together to construct criteria by which they will make career decisions.
- 1.2 Students practice making decisions which are evaluated for objectivity by other students and teachers.
- 2.1 Students research career monographs and career publications to secure information.
- 2.2 Students interview employees.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Develop criteria for decision-making as class project.

2.1 Teacher searchs out and secures appropriate items for student use.



# CLUSTER IV: Marine Science

# DEVELOPMENTAL AREA G: Self

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To realize the degree to which self-concept, interests and, abilities can affect job performance.

PERFORMANCE OBJECTIVE	ACTIVITIES	PROCEDURES AND/OR RESOURCE MATERIALS
The student should be able:  I To analyze his own personality and show how it relates to his own success in school	<ul> <li>1.1 Students interview persons holding jobs and discuss self-concept.</li> <li>1.2 Involve students in examination and discussion of psychological needs of work (satisfaction, etc.).</li> </ul>	<ul> <li>1.1 Consult local resource file for speakers.</li> <li>1.2 Contact guidance personnel for administration of appropriate tests (as GATB)</li> </ul>
2. To relate personality types and probable successful job performance for five jobs.	2.1 Ask students to build an adjective-noun schema to show probable job success. For example:  Outgoing—Public Relations Expert.	2.1 Teacher have class unit on personal qualities.
3. To analyze his own interests and apply this to job selections.	<ul><li>3.1 Students take OVIS test to determine interests.</li><li>3.2 Students write a self-analysis and then identify possible jobs that might be appropriate.</li></ul>	3.1 Teacher arranges to give OVIS.
4. To assess his own ability and realistically relate this to job selection.	4.1 Students do class project on self-evaluation.	4.1 Teacher conducts short unit on self-evaluation.



# JOB CLUSTER V COMMUNICATIONS AND MEDIA



#### **JOB CLUSTER V**

#### **COMMUNICATIONS AND MEDIA**

#### A. Rationale:

Communication is the basis for promoting good human relations in society. It is also the means for transferring and recording knowledge whereby technology may progress. With this progression comes a greater demand for personnel to fill a variety of positions in communications and the media used in the process of communications. In the communications cluster we have equipment and media, people involved in creating ideas, and people involved in processing ideas. Jobs are classified in three categories: those involving data or ideas, those involving people, and those primarily concerned with things.

## B. Relationship with subjects:

Communication is primarily to the field of language arts in this unit, even though it is a part of every subject taught. Communication will be touched upon in the areas of written and spoken communication. Much communication is found in arts and humanities.

## Typical careers in Communications and Media include:

Advertising Executive Commercial Artist

Illustrator Draftsman Sign Painter Printer

**Duplicating Machine Operator** 

Compositor
Press Operator
Plate Maker
Bookbinder
Purchasing Agent

Printer Typists

Machine Repairmen

**Editor** 

Technical Writer Free-lance Writer

Reporter Cartoonist Deliverymen Postal Carriers Salesman

Station Manager Broadcast Technician

Producer

News Broadcaster

Advertising Salesman Radio-Telegraph Operator Communications Engineer

Field Engineer Service Observer Equipment Installer

Testing and Regulating Technician

Electrician

Cable Repairman Program Director

**Producer** 

Traffic Manager News Editor News Broadcaster

Advertising Sales Executive

Receptionists System Analyst

Computer Programmer Computer Operator Telegraph Operator Morse Operator Cable Engineer

Engineer, Communication Service Repres .ative

Local Operator

Long Distance Operator



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#### **DEVELOPMENTAL AREA A: Individual and Environment**

DEVELOPMENTAL GOAL NO. 1: To aid the student in interpreting the importance of communications and media to society and the individual.

# PERFORMANCE OBJECTIVES

## The student should be able:

1. To list three occupations in communications which society is dependent upon.

### **ACTIVITIES**

- 1.0 Students will prepare a list of methods of communication used today.
- 1.1 Have a speaker from the telephone company speak to the class on the role of the telephone and service to society.
- 1.2 Visit telephone company to observe its operations.
- 1.3 Make a bulletin board showing methods of communication and variety of occupations reviewed.
- 1.4 Prepare a chart showing careers in communications needed by business and society.
- 1.5 Make a job tree of communications workers including supervisors, operators, service installators, teachers, etc.
- 2. To list five stages in the development of communication and five resulting occupations.
- 2.1 Using social studies book, students locate and list at least two types of communication and occupations provided by each of the following:

Stone age and primitive man

- 1.1 Consult local resource file for speaker and field trips to telephone company.
- 1.2 Collect magazines for pictures.
- 1.3 Provide *DOT* for student reference.

- 2.1 Provide social studies texts.
- 2.2 Secure related material about the telephone system, radio and television, and communications satellite.



# PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

# PROCEDURES AND/OR RESOURCE MATERIALS

Medieval Period of dark ages. Societies of Renaissance U.S. in 1940 U.S. in 1970

- 3. To list at least twenty communications occupations which exist today but which were not present in 1900.
- 3.1 Look in *DOT* for jobs in telephone, telegraph, radio and television.
- 3.2 Create a list of jobs that were not in existence at the beginning of the century.
- 3.3 Construct a list of new jobs in data processing and satellite communications.
- 3.1 Provide *DOT* for class reference.
- 3.2 Contact a representative of the New York Stock Exchange for information on the communications satellites and related jobs.
- 3.3 Consult local resources file for needed information.



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#### DEVELOPMENTAL AREA B: The World of Work

DEVELOPMENTAL GOAL NO. I: To aid the student in obtaining information about occupational opportunities in communications and media in his community.

## PERFORMANCE OBJECTIVES

## The student will be able:

I To list in writing two important reasons for career orientation, and its relation to occupations in the world of work.

# **ACTIVITIES**

- 1.1 Discuss the importance of setting goals for one's self in life, even though these goals change with maturity.
- 1.2 Divide into groups of four or five to discuss what type goals students consider more important.
- 1.3 Have each student list two reasons for studying about careers.
- 2. To list and define three occupations in communications.
- 2.1 Have each student select three occupations from a given list.
- 2.2 Read career stories from booklets and fiction books related to communications careers.
- 2.3 Have buzz sessions in which students describe interesting sections of the book.
- 2.4 Interview people in the community involved in communications.
- 2.5 Play tapes in class and discuss the variety of jobs held.
- 2.6 List on board all occupations reported by students.
- 2.7 Have each student select one job from the list in 2.5 and write a paragraph describing that job.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide related reference materials.

- 2.1 Provide list of communication careers from *DOT*.
- 2.2 Provide booklets on careers and fiction reading list.
- 2.3 Provide tape recorder and tapes for interview.

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# **DEVELOPMENTAL AREA C: Education and Training**

DEVELOPMENTAL GOAL: NO. 1: To become familiar with the skills and proficiencies needed for occupations in the areas of oral and written communication.

# PERFORMANCE OBJECTIVES

# The student should be able:

1. To list the educational requirements of at least five occupations in the area of communications.

2. To identify and use the skills needed to qualify for at least three jobs in written communications.

### **ACTIVITIES**

- 1.1 Invite representatives from local business, colleges, and data processing firm to explain training required.
- 1.2 Show film on careers in data processing and have students list careers.
- 1.3 Have each student select five jobs and give educational requirements of each.
- 2.1 Discuss requirements for written communications positions with personnel representative from Ohio State Employment Office.

- 1.1 Consult local resource file on field trips.
- 1.2 Check with audiovisual department for films.
- 1.3 Provide educational catalog for reference.
- 2.1 Contact Ohio State Employment Office for speaker.



# **DEVELOPMENTAL AREA C: Education and Training**

DEVELOPMENTAL GOAL NO. 2: To acquaint students with job requirements of persons engaged in communications.

## PERFORMANCE OBJECTIVES

# The student should be able:

1. To define the tasks of three persons engaged in communications and identify the education required.

2. To determine the training requirements of at least five employees in communications.

### **ACTIVITIES**

- 1.1 Students discuss and list duties performed by a commercial artist.
- 1.2 Invite a local commercial artist to discuss his training and education with students.
- 1.3 View film on commercial art careers.
- 2.1 Have groups of students prepare or give a report on specific training needed by a commercial artist.
- 2.2 Students interview employees to determine their training levels.

- 1.1 Provide commercially prepared references.
- 1.2 Consult local resource file for commercial art personnel.
- 2.1 Arrange per career literature through library.
- 2.2 Arrange student visits to industry.



**DEVELOPMENTAL AREA D: Economics** 

DEVELOPMENTAL GOAL NO. 1: To orient the student to economics in communications and media occupations.

# PERFORMANCE OBJECTIVES

## **ACTIVITIES**

# PROCEDURES AND/OR RESOURCE MATERIAL

The student should be able:

- 1. To construct a chart or graph showing investments in training and or materials needed in at least five careers in Communication.
- 1.1 Discuss the production of the school newspaper and list cost of equipment needed by owner.
- 1.2 Obtain the sales figures from a recent paper issue and compare with investment.
- 1.3 Have each student make a graph showing this information.
- 2. To list beginning and average salaries for five careers in communications.
- 2.1 Interview employees.
- 2.2 Make summary charts or graphs.
- 2.1 Select companies for interviews and make arrangements.



# DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

DEVELOPMENTAL GOAL NO. 1: To help the student become knowledgeable about employability requirements in communications careers.

## PERFORMANCE OBJECTIVE

The student should be able:

- 1. To list at least three ways of making a favorable impression in a job interview.
- 2. To identify two sources of temporary and two sources of long-term employment and tell what qualities are most useful and why.

- 3. To list at least five qualities he possess which would make him employable in communications careers.
- 4. To evaluate his own ability to adjust in a career with a variety of tasks.

## **ACTIVITIES**

- 1.1 Invite a personnel interviewer to discuss the importance of the job interview.
- 1.2 Role-play a job interview in the classroom.
- 2.1 Invite representatives from Ohio State Employment Bureau and private employment agencies to talk to the class.
- 2.2 Students canvass school neighborhoods for help wanted and list available jobs.
- 2.3 Students write letters of inquiry on available jobs in communications.
- 3.1 Students do a self-analysis in terms of job interests and abilities.
- 4.1 Student analyzes his own abilities to adjust.

- 1.1 Consult local resource file for speakers.
- 1.2 Provide list of typical interview questions.
- 2.1 Consult local resource file for field trips.

- 3.1 Arrange for OVIS.
- 4.1 Arrange trips to industry or resource persons to class.



## **DEVELOPMENTAL AREA F: Decision-Making**

DEVELOPMENTAL GOAL NO. 1: To help the student realize there are many possibile work choices based upon his own interest and abilities.

# PERFORMANCE OBJECTIVES

## The student should be able:

1. To list and define his personal qualifications and suitability for work in communications and media.

2. To identify three careers in

decision-making ability.

communications that require

little decision-making ability and three that require much

#### **ACTIVITIES**

- 1.1 Fill out sample application for a job and resume for class.
- 1.2 Discuss the qualifications for careers in communications—written, verbal, and service installation.
- 1.3 Role-play various careers such as job applicant, personnel manager, teacher, principal, radio announcer, actor, model, and others.
- 1.4 Have each student complete a social security application.
- 1.5 Ask each student to select a possible work interest based upon his interest and capability.
- 2.1 Students research career literature.
- 2.2 Have employer visit class to discuss career requirements.

# PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Provide application forms and resume forms.
- 1.2 Obtain enough social security applications for the class.

2.1 Arrange literature and resource persons.



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## **DEVELOPMENTAL AREA G: Self**

DEVELOPMENTAL OBJECTIVE NO. 1: To aid the student in understanding himself in relation to his career interests and capabilities.

# PERFORMANCE OBJECTIVE

The student should be able:

1. To choose three possible careers based on an understanding of his personal qualities.

## **ACTIVITIES**

- 1.1 Administer and interpret OVIS or other interest inventory.
- 1.2 Administer and interpret GATB or other aptitude tests.
- 1.3 Discuss the importance of the following factors:

  interest developed abilities scores performance in related objectives job potential salary potential fringe benefits congruency with one's value system.
- 1.4 Discuss test profile and interest with student.
- 1.5 Ask guidance counselor to discuss relationship of interest inventory and the individual's value system.
- 2. To describe his "real self" and adaptation to communications and media careers.
- 2.1 Students write self-evaluation.
- 2.2 Have group evaluation sessions for each student.

# PROCEDURES AND/OR RESOURCE MATERIAL

1.1 Check with guidance department for time needed to administer and interpret interest inventories and aptitude tests.

2.1 Have OVIS and GATB results available.



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# JOB CLUSTER VI BUSINESS AND OFFICE



#### JOB CLUSTER VI

#### **BUSINESS AND OFFICE**

#### A. Rationale

Business and office workers are found within every field of employment whether private or governmental, large or small. Business employees perform many varied and specialized functions and make decisions that directly contribute to the success or failure of the business enterprise. Office employees are responsible for the magnitude of paperwork generated by businesses today. They operate business machines and handle all forms of internal and external communications. Many jobs in this cluster require a high degree of specialization and training while others require very little experience and education. In 1970 there were over 13 million people employed in clerical occupations and seven out of ten of these workers were women. One out of five clerical workers is employed as a secretary or stenographer.

# B. Business and Office Occupations in the Curriculum

Business and office careers relate closely to the mathematics and typing curriculum. The skills and accuracy needed in these subjects have a direct application to the jobs in this cluster. Because many of these jobs require good spelling and grammar and reading comprehension in addition to arithmetic skills, language arts instructors can easily relate this cluster to their subject area. Social studies classes can discuss the importance of good interpersonal relations and learn about different forms of business organization. A review of the occupational flow charts can assist the instructors of other subjects in relating business and office careers to their curriculum. (See Appendix)

# C. Typical careers in Business and Office include:

Appointments Secretary
Receptionist
Legal Secretary
Foreign Language Stenographer
Clerk Stenographer
Contract Clerk
Settlement Clerk
Waybill Clerk
General Machine Operator
Computer Operator

Certified Public Accountant

Manager of Public Affairs Branch Manager Identification Clerk Tax Accountant
General Bookkeeper
Key Punch Operator
Business Programmer
Stock Superintendent
Conciliator
Office Manager
Cost and Sales Records Supervisor
Budget Officer
Treasurer
Systems Analyst
Store Manager
Regional Manager
Publications Supervisor
Personnel Recruiter



### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students realize that successful business and office careers are based on certain abilities and interests.

## PERFORMANCE OBJECTIVES

## **ACTIVITIES**

# PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To prepare a chart showing the most common interests and abilities needed in business and office careers.
- 1.1 Students prepare a chart listing all of the interests and abilities found and the frequency of each.
- 1.2 Ask a panel of students to discuss the interests and abilities needed for most business and office careers.
- 2. To list at least five interests needed for a successful career in business and office.
- 2.1 Class should view films of business and office workers and list interests noted.
- 2.1 Check local audiovisual department for related films.
- 2.2 Students interview an office worker to find what interests he has that correspond to his job.
- 2.2 Check local resource guide for speakers.
- 2.3 Students research several business and office careers to find interests.
- 2.3 Provide *DOT* and related pamphlets and kits.

- 3. To list at least five abilities needed for a successful business and office career.
- 3.1 Tour local business and note basic skills and abilities being used.
- 3.1 Consult local resource guide for field trip and speakers.
- 3.2 Students research several careers and list abilities required.
- 3.2 Provide *DOT* monographs or kits, and career pamphlets.
- 3.3 Students interview personnel worker to find what abilities are expected of new employees.



# **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To orient students to the numbers and types of business and office careers available in the world of work.

PERFORMANCE OBJECTIVES	ACTIVITIES	PROCEDURES AND/OR RESOURCE MATERIALS
The student should be able:  1. To match the numbers of people employed in business and office occupations and at least ten different types of careers available.	1.1 Students study career literature and prepare a summary paper.	1.1 Teacher arrange for litera- ture from library or guidance office.
2. To illustrate how at least three business and office careers related to other	2.1 Students refer to career literature.	2.1 Secure films and other materials from library.
segments of the world of work.	2.2 Students view films on business and office careers.	
3. To develop a local job opportunities listing for business and office careers.	3.1 Students study local newspaper listings.	3.1 Teacher check with Chamber of Commerce.
•	3.2 Students confer with employment service per-	3.2 Arrange for conference with employment service.

sonnel.



## **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students become knowledgeable about the education, training, and skills necessary for careers in business and office.

# PERFORMANCE OBJECTIVES

## The student should be able:

1. To describe three possibilities for employment in business and office jobs.

## **ACTIVITIES**

- 1.1 Invite representatives from high school business and office programs to explain courses.
- 1.2 Invite representatives from local business to explain opportunities available to high school business and office graduates.
- 1.3 Students interview high school counselors or use library research to gain information.
- 2. To list three ways in which interested students could begin preparing for a business and office career.
- 2.1 Students report on hobbies or other activities that could lead to employment in this cluster.
  - 2.2 Invite representative from Junior Achievement to explain how skills learned could be used in business.
  - 2.3 Students interview high school counselors concerning student clubs and activities that relate to business careers.
  - 2.4 Students list skills that they study in language arts that could be helpful in business and office careers.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult local resource file for speakers.



# PERFORMANCE OBJECTIVES

- 3. To list three jobs which require the following training:
  - -- on-the-job training
  - --- business school
  - two year technical school
  - -- four year college program

## **ACTIVITIES**

- PROCEDURES AND/OR RESOURCE MATERIALS
- 3.1 Students report on courses offered in local business college, high school, and technical school that lead to careers in business and office.
- 3.2 Students create a chart compiling the information that they have researched.



# **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students become knowledgeable about the economic facts of a career in business and office occupations.

## PERFORMANCE OBJECTIVES

# The student should be able:

1. To list the current salaries or wages of at least five business and office careers that interest him.

2. To describe the amount and

three jobs of interest.

cost of training in obtaining

## **ACTIVITIES**

- 1.1 Students research available information for current wages and salaries.
- 1.2 Invite representatives from employment agencies or personnel departments to discuss current wages and salaries.
- 1.3 Students review newspaper want ads and obtain current salary and wage information.
- 2.1 Invite representative from local business college to explain course offerings, costs, and employment possibilities.
- 2.2 Students research information concerning training programs available in high school curriculum.

# PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Obtain salary information from Ohio Bureau of Employee Services.
- 1.2 Contact local resource file for speakers.

2.1 Consult local resource file for speakers.



## DEVELOPMENTAL AREA E: Employability and Work Adjustment

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquaint students with the expectations of employers of business and office personnel.

# PERFORMANCE OBJECTIVES

## The student should be able:

 To list ten characteristics which employers expect of business and office employees.

### **ACTIVITIES**

- 1.1 Students interview business manager to learn about his expectations.
- 1.2 If any student has a parent who works in an office, ask the student to report of what is expected of parent on the job.
- 1.3 Students tour a local business and note the interpersonal relationships between employees and other job expectations.
- 2. To list at least five attitudes that would aid his adjustment on the job.
- 2.1 Students discuss what they feel are basic attitudes needed for job success.
- 2.2 Class prepares a chart of the attitudes listed.
- 2.3 Students view films depicting office workers on the job to see if the attitudes listed above are shown.
- 2.4 Role-play two office situations: one in which the attitudes are present and one in which they are absent.
- 2.5 Students discuss the importance of good attitudes on the job.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Consult local resource file for speakers and field trips.

2.3 Check with audiovisual department for films.



## **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENT OBJECTIVE NO. 1: To help students develop skills in evaluating their decision-making abilities that have application to business and office careers.

# PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

# PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

1. To categorize the decisionmaking abilities needed for at least three business and office careers.

2. To explain the desirability of

the jobs selected above in

and interests.

terms of one's own abilities

- 1.1 Research pertinent information in library or resource center.
- 1.2 Students interview people employed in business and office careers and write a report of information gained.
- 1.3 Students make a chart categorizing the information they have gained about the careers they have chosen.
- 2.1 Students review the information collected in previous activities and list reasons why the job would or would

not match their interests and

2.2 If two students have opposite reactions to the same job, ask them to explain their reasoning to the class.

abilities.

- 3. To list at least three jobs that would match his own interests and abilities and three that would not from this cluster.
- .1 Each student selects careers and writes a short paper telling why he would or would not select these careers.
- 3.2 Invite high school counselor to explain the importance of matching abilities and interests with job choices.

1.2 Consult local resource file for speaker.



## DEVELOPMENTAL AREA G: Self

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To discover one's personal capabilities as they relate to business and office careers.

# PERFORMANCE OBJECTIVES

The student should be able:

1. To explain how his own interests and abilities could lead to a career in business and office cluster.

# **ACTIVITIES**

- 1.1 Administer the OVIS or other interest survey to students.
- 1.2 Ask guidance counselor to interpret results to the class.
- 1.3 Administer General Aptitude Test Battery (GATB) to students and discuss results with class.
- 1.4 Compile chart using information gathered in previous exercises for student reference.
- 1.5 Student selects three careers that would relate to his interests and abilities.
- 1.6 Student writes a short paper giving the results of this study.
- 2. To list at least three business and office careers that would not match his own interests and abilities.
- 2.1 Using the information gathered in the above exercises, each student selects three careers that would not match his interests and abilities.
- 2.2 Each student gives a short talk telling why these careers are not "for him."

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check with guidance counselor for availability of interest and aptitude tests and time needed for interpretation and administration.



# JOB CLUSTER VII MARKETING AND DISTRIBUTION



#### JOB CLUSTER VII

#### MARKETING AND DISTRIBUTION

#### A. Rationale

The marketing and distribution job cluster offers a great variety of job opportunities to young people—to those who have college degrees as well as those who have not finished high school. In 1970 4.7 million workers were employed in sales occupations and about one-quarter of these were part-time employees. Nearly 17 million people were employed in wholesale and retail industries including two million who were self-employed. Education and training requirements are as varied as the jobs themselves with many workers receiving on-the-job training or attending special training sessions after they are employed.

## B. Marketing and Distribution in the Curriculum

The marketing and distribution cluster relates easily to several subjects. Basic mathematics skills are essential as workers must frequently quote prices and make change. Because salespersons must deal with strangers, in person and on the telephone, communicative skills play an important role in their background. Social studies classes can cover the interpersonal relations necessary for job success and the science curriculum provides examples of some of the specific scientific information needed by specialists. Close examination of the existing curriculum and the occupational flow charts (see appendix) will show many additional relationships between this cluster and the subjects being taught.

# C. Typical careers in Marketing and Distribution include:

Merchandise Manager Real Estate Salesman Sales Engineer General Merchandise Salesman Automobile Parts Salesman Direct Mail Specialist House-to-House Salesman **Export Manager** Advertising Representative Display Man **Public Relations Worker** Transportation Foreman Shipper Warehouse Manager Inventory Clerk Receiving Clerk Junk Buver Price Purchase Analyst

Securities Advisor Loan Counselor Life Insurance Salesman Market Research Analyst Product Designer Sales Executive Industrial Relations Manager Sales Director Personnel Manager Toy Buyer Floor Manager Grocery Salesman Jewelry Salesperson Director of Purchasing Chain Store Buver Procurement Clerk

Materials Handler



#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help student realize his dependence on careers in marketing and distribution.

# PERFORMANCE OBJECTIVES

# The student should be able:

1. To list at least five ways in which he is dependent on marketing and distribution careers in his daily life.

# 2. To list at least ten major products that are marketed in the local community, and the jobs that are associated with those products.

# **ACTIVITIES**

- 1.1 List 25 marketing and distribution careers on the board as students name them.
- 1.2 Have students role-play a grocery store owner and the people associated with that husiness.
- 1.3 Create a list of ten or more items used daily and ask each student to pick one of them and list five related careers.
- 2.1 Distribute telephone books to students and have them list the major industries located in the community.
- 2.2 Have groups of students research and make a bar graph showing annual production by these companies.
- 2.3 After each group reports to the class, give each student a map of the county and have him locate the companies on the map.

- 2.1 Provide telephone directories.
- 2.2 Contact companies or Chamber of Commerce for information.



# **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To realize that a successful career in marketing and distribution is based on interests and abilities.

# PERFORMANCE OBJECTIVES

# PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To list at least five skills related to a career in marketing and distribution.
- 1.1 Invite an employee to discuss his skills with the class.

**ACTIVITIES** 

- 1.2 View a film showing careers and ask students to list the skills that they observe.
- 1.3 Tour a local retail store and list the skills used by salespersons.
- 1.4 Have each student list the most important skills he has found in the above activities; combine the lists.

- 1.1 Consult local resource file for speakers and field trips.
- 1.2 Check with audiovisual department for films.

- 2. To list at least five personal attributes that relate to a successful sales career.
- 2.1 Create a list of the personal characteristics that the students feel are important.
- 2.2 Discuss the importance of the following attributes with the class:

self-confidence
energy
poise
self-discipline
imagination
ability to communicate

2.3 Ask the personnel manager of a sales firm to talk with the class about the characteristics he looks for in employees.

2.1 Consult local resource file for speakers.



# **DEVELOPMENTAL AREA B: World of Work**

OVERALI. DEVELOPMENTAL OBJECTIVE NO. 1: To become knowledgeable about the career opportunities available in the local community in marketing and distribution.

# PERFORMANCE OBJECTIVES

The student should be able:

1. To identify the seven general areas of employment in this cluster and list three or more examples of occupations in each.

2. To list at least three jobs in the community that fit into each of the seven U.S.O.E. subgroups. (See flow chart in Appendix).

## **ACTIVITIES**

- 1.1 Study copies of the U.S.O.E. flow charts with the class and list the jobs available in each subgroup.
- 1.2 Divide the class into groups according to interest.
- 1.3 Have each group make a detailed study of the selected area and research careers available.
- 1.4 Have each group make a presentation to the class.
- 1.5 Have each group prepare a large wall chart of the careers they have researched.
- 2.1 Pass out copies of the U.S.O.E. flow charts and discuss them with the class.
- 2.2 View films on marketing and distribution careers and list careers observed.
- 2.3 Have small groups of students tour local establishments to learn about marketing careers.

- 2.1 Provide U.S.O.E. flow charts.
- 2.2 Consult local resource file for speakers and field trips.
- 2.3 Provide *DOT* and related reference materials.



# PERFORMANCE OBJECTIVES

# **ACTIVITIES**

- 2.4 Using *DOT* and other references, have students research additional careers.
- 2.5 Invite several persons employed in marketing and distribution firms to discuss job opportunities with students.



## **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENT OBJECTIVE NO. 1: To become knowledgeable about the different educational requirements necessary for various marketing and distribution careers.

# PERFORMANCE OBJECTIVE

The student should be able:

1. To match a list of ten marketing and distribution careers with the training required.

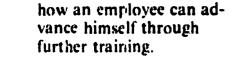
### **ACTIVITIES**

- 1.1 Create a list of careers that interest the students and select the twenty more popular.
- 1.2 Have small groups of students research the educational requirements for each career.
- 1.3 Each group should prepare a chart illustrating its research and present its findings to the class.
- 1.4 Create a bulletin board displaying the charts.
- 2. To list at least ten marketing and distribution careers that can be obtained with a high school education.
- 2.1 Invite the local Distributive Education instructor to explain the high school program and opportunities for graduates.
- 2.2 Have small groups of students research other careers that require only a high school diploma.
- 2.3 View selected films and list careers that require only a high school degree.
- 3.1 Discuss on-the-job training, university extension courses, industry-sponsored training programs and home study as means of advancement.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide DOT, Occupational Outlook Handhook and related resources.

- 2.1 Contact high school for DE instructor.
- 2.2 Provide necessary research materials.
- 2.3 Check with audiovisual department for films.



3. To give three examples of



# PERFORMANCE OBJECTIVES

## **ACTIVITIES**

- 3.2 Invite a sales executive to discuss his past jobs and the training he needed for advancement.
- 3.3 Students make ladders of related careers and discuss the training needed for advancement.
- 4. To explain why two salesmen may have similar jobs but different salaries.
- 4.1 Have students role-play a job interview in which one applicant has minimum skills and training and another has advanced training.
- 4.2 Discuss how different degrees of training may affect one's salary.

## **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become familiar with the economic costs and rewards possible in marketing and distribution careers.

# PERFORMANCE OBJECTIVES

## The student should be able:

1. To select at least five marketing and distribution careers and list the current wages or salaries for these jobs.

## **ACTIVITIES**

- 1.1 Students will research current information for statistics.
- 1.2 Each student interviews at least one person in a career he has chosen to determine salary ranges.
- 1.3 Contact several employment agencies to obtain current salary information.
- 1.4 Have students check the classified ad section of the paper for job listings.
- 1.5 Have each student prepare a chart of his findings.
- 2. To list the expense necessary to obtain the needed skills for each of the five jobs selected.
- 2.1 Students interview employees to determine type and cost of training.
- 2.2 Provide time for library research on educational requirements and training costs.
- 2.3 Have each student report on one of the careers he has chosen.

# PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Contact the State Employment Agency for salary information.

2.1 Provide career literature.



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 2: To become familia: with the differences between salaried salespersons and those who work for a commission.

# PERFORMANCE OBJECTIVE

The student should be able:

1. To explain, in writing or orally, the difference between salary and commission and give at least two advantages of each.

## **ACTIVITIES**

- 1.1 Invite a salesperson who is salaried and one who works on a commission basis to talk to the class.
- 1.2 Have students compute several commission problems.
- 1.3 Have students interview the manager of a small store that pays a commission to determine how this has affected his sales.
- 1.4 Have groups of students role-play several sales situations, such as:
   house-to-house salesman insurance salesman pharmaceutical salesman retail sales clerk
- 1.5 Have a rap session with students concerning the advantages of salaries and commissions.

- 1.1 Consult local resource file for speakers.
- 1.2 Make up commission problems or use mathematics book, if appropriate.



# **DEVELOPMENTAL AREA E: Employability and Work Adjustment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquire knowledge of the procedures which may be needed to obtain employment in marketing and distribution careers.

# PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

# PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To compare the different methods of applying for a job.
- 1.1 Discuss the different methods of applying for a job—by letter, by personal interview, by phoning to answer a want ad.
- 1.2 Have students list the skills needed in each method of application.
- 2. To write a sample resume of his qualifications.
- 2.1 Ask a representative from a private employment agency to explain the importance of a resume and what it should contain.
- 2.2 Construct a sample resume on the board and discuss its contents with the class.
- 2.3 Have each student make a resume that includes the items discussed above.

- 2.1 Consult local resource file for speakers.
- 2.2 Provide resume forms.

- 3. To write a letter of application for a marketing job advertised in the newspaper.
- 3.1 Discuss the form for writing a letter of application.
- 3.2 Have each student select an advertisement from the local paper and write a letter of application for that job.
- 3.1 Provide recent newspapers.



# PERFORMANCE OBJECTIVES

# 4. To demonstrate the proper and improper ways to conduct himself in a job interview.

5. To list at least five qualities

careers in marketing and

6. To list at least five indicators

of a person's adjustment to

distribution.

his job.

employable for five different

which would make him

#### **ACTIVITIES**

- 4.1 Invite a respresentative from an employment agency to discuss the importance of a job interview and tips for a good interview.
- 4.2 Have the employment counselor interview several students to demonstrate good and bad interview techniques.
- 4.3 Show films depicting job interviews and discuss the good and weak points of each.
- 4.4 Divide the students into teams and have them roleplay correct and incorrect job interview procedures.
- 5.1 Students summarize a list of qualities from discussions with employees.
- 6.1 Students summarize findings after conferring with employees.

# PROCEDURES AND/OR RESOURCE MATERIALS

4.1 Consult local resource file for speakers.

5.1 Arrange for discussions with employees.



# **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop skills in evaluating information for various occupations in marketing and distribution.

# PERFORMANCE OBJECTIVES

The student should be able:

1. To obtain pertinent information about five marketing and distribution careers of interest.

### **ACTIVITIES**

- 1.1 Have students list the types of information they think they might need to make an occupational choice.
- 1.2 Ask the guidance counselor to explain the use of the DOT, Occupational Outlook Handbook and other related references.
- 1.3 Provide the students with a list of information to obtain for decision-making. The list might include:
  - -entry opportunities scholarships, summer jobs apprenticeships on-the-job training industry sponsored training schools
  - Entry requirements
    education and training
    previous experience
    licensing
    equipment
    personal traits
  - Advancement Opportunities channels
  - steps
    Earnings
    entry salaries or wages
    median after five years
    top possibilities

- 1.1 Arrange for guidance counselor to talk with class.
- 1.2 Provide handouts for job survey.



### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

### PROCEDURES AND/OR RESOURCE MATERIALS

Fringe Benefits

- -sick leave
- -vacation
- -insurance
- -retirement

**Working Conditions** 

- -hours
- -indoor vs. outdoor
- -manual vs. mental
- —one location vs. travel
- -environment
- —professional organizations or unions
- -daily routine vs. change
- 1.5 Provide time for students to research needed information about the five careers they have selected.
- 1.5 Make a permanent room file of the information obtained.
- 2. To list at least three activities that he can now do that would prepare him for a career in marketing and distribution.
- 2.1 Invite representative from Junior Achievement to explain its operation and sales opportunities to students.

2.2 Have students who participate in volunteer activities explain how these activities might help them prepare for a career in sales.

2.1 Consult local resource file for speakers.

- 3. To analyze his decisionmaking ability and identify three careers that would match this ability.
- 3.1 Have student prepare summations of their decision-making ability.
- 3.1 Teacher identify pertinent points.



#### CLUSTER VII: Marketing and Distribution

#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help each student discover careers in marketing and distribution that match his interests, aptitude and abilities.

#### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To identify his interests as they relate to a career in marketing and distribution.

#### **ACTIVITIES**

- 1.1 Administer and interpret the OVIS or similar interest survey.
- 1.2 Using the profile from the OVIS, each student compares his interests with the job analysis he made on the five careers in the previous exercises (Decision-Making).
- 1.3 Each student should note where his interests match the interests needed and where they don't.
- To identify his abilities as they relate to a career in marketing and distribution.
   Administer and interpret the GATB or similar aptitude test.
  - 2.2 Using the test results, each student should compare the results with the job analysis he completed in the previous exercises (Decision-making).
- 3. To identify educational opportunities that relate to five jobs in marketing and distribution.
- 3.1 Students visit training institutions for marketing and distribution careers, including the local high school, community college, business college, vocational schools and colleges.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check with guidance department for time needed to administer score and interpret the OVIS.

- 2.1 Check with guidance department for time needed to administer and interpret the GATB.
- 3.1 Consult local resource file for field trips.



### PERFORMANCE OBJECTIVES

4. To select at least three marketing and distribution careers that match his interests and abilities.

#### **ACTIVITIES**

- PROCEDURES AND/OR RESOURCE MATERIALS
- 4.1 Each student compares the analysis of jobs with the results of the OVIS and the GATB.
- 4.2 Each student should select one career that would satisfy him, and write a short report explaining why.



JOB CLUSTER VIII

PUBLIC SERVICE



#### JOB CLUSTER VIII

#### **PUBLIC SERVICE**

#### A. Rationale

One feature common to most of the public service occupations is that they depend upon public support in that they receive their revenue from taxation, bonds, or fees. A second feature is that they provide services to the public. The services performed are extremely important to each of us. A partial list of these services would include: regulatory services, police and fire, postal services, public health, education, defense, public utilities, public transportation, and many others.

#### B. Public Service in the curriculum.

Any one of the subject areas could include public service career-related activities. Social studies instructors can easily incorporate public services into their curriculum both as current events and as historical studies. Science classes may wish to discuss the scientific aspects of police and fire protection as well as public health. Likewise, other aspects of the public service cluster will correlate with various curriculum areas.

#### C. Typical careers in the Public Service cluster include:

Truck Driver	Dispatcher	Service Director
School Bus Driver	Custodian	Business Manager
Teacher	Principal	Superintendent
Postman	Inspector	Postmaster
Serviceman	Officer	President
Precinct Committeeman	Councilman	Mayor
Patrolman	Detective	Chief of Police
Fireman	Inspector	Fire chief
Deckhand	Harbor Pilot	Harbor master



#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop an understanding of the interdependency of the local environment and the public service occupations.

### PERFORMANCE OBJECTIVE

#### The student should be able:

I To identify ten public service occupations in his community and list at least one reason why each is necessary in the community.

# 2. To explain job opportunities and description of one public service area such as the safety services.

#### **ACTIVITIES**

- 1.1 Students tour local public service facilities after discussing appropriate text material.
- 1.2 Students write to the facilities to get a list of occupations.
- 1.3 Student selects one occupation, looks it up in the *DOT* and explains it to his group.
- 1.4 Each student gives a short talk about one occupation which interests him.
- 2.1 Discuss safety services using pictures found in newspapers and magazines.
- 2.2 Students interview a fireman or patrolman to complete a class prepared questionnaire.
- 2.3 Students take field trips to local police and fire departments.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Consult coordinator for field trip.
- 1.2 Consult local resource file for consultants.
- 1.3 Provide DOT.

- 2.1 Provide *DOT* for student reference.
- 2.2 Consult local resource file for consultants and field trips.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALI. DEVELOPMENTAL OBJECTIVE NO. 1: To become familiar with the variety of occupations included in the public service cluster.

### PERFORMANCE OBJECTIVE

The student should be able:

- 1. To list ten occupations in each of four areas:
   postal services
   public health
   education
   public utilities
- 2. To make a chart differentiating between local, state, and national public services.

#### **ACTIVITIES**

- 1.1 Students view films on public service careers.
- 1.2 Students interview public service workers regarding variety of careers in specific areas.
- 1.3 Students tour public services and list all jobs seen.
- 2.1 Students research parallel services in school and public library.
- 2.2 Students expiain orally one service that crosses governmental levels.
- 2.3 Students list eight services provided by each level of government.
- 2.4 Students tour parallel local and stat services, such as police station and state patrol headquarters.
- 2.5 Students interview an employee at a postal sub-station to complete a prepared questionnaire.

- 1.1 Provide selected suitable commercially prepared information and such references as *DOT*.
- 1.2 Consult local resources file for speaker and field trips.
- 2.1 Notify librarian to have materials available.
- 2.2 Contact coordinator to set up field trips.
- 2.3 Develop questionnaire that will produce the desired information



### PERFORMANCE OBJECTIVE

3. To explain orally that some non-governmental utilities are considered public service, and to list five occupations in each area.

4. To write a report comparing an occupation found in private enterprise and public service that have the same job description.

#### **ACTIVITIES**

- 3.1 Have class list "public utilities" that serve the local area
- 3.2 Have a consultant from a publically owned utility and one from a privately owned utility explain the organizational structures of their companies to the class.
- 3.3 Have students compare the ownership of the telephone company with that of the fire department.
- 4.1 The student will list two occupations that have the same title although one is found in public institutions and the other in private business.

### PROCEDURES AND/OR RESOURCE MATERIALS

3.1 Consult local resource file for speakers.

- 4.1 Visit library for research materials.
- 4.2 Provide DOT.



#### **CLUSTER VIII: Public Service**

#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand the knowledge, education, and training necessary to develop job entry skills.

### PERFORMANCE OBJECTIVE

#### The student should be able:

1. To name job entry level skills necessary to enter at least two public service careers.

2. To list those local school facilities which provide education and training for public service careers.

3. To identify educational requirements for ten public service jobs at various levels:

Unskilled
Skilled
Technician

#### **ACTIVITIES**

- 1.1 Have a class discussion on how to get a job.
- 1.2 Develop a list of ten public service occupations.
- 1.3 Interview a personnel worker in public services to ascertain entry level skills and job application procedures.
- 1.4 Examine several job application forms with the class for content.
- 1.5 Students determine and list the skills needed.
- 2.1 Make a list of all subjects taught in the junior high school curriculum.
- 2.2 Compare this list with a list of entry level skills. List those courses that would give most experiences leading to the job entry skills for occupations in question.
- 3.1 Have former graduates speak to classes.
- 3.2 Students make reports on careers of interest.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Consult local resource file for consultant from personnel office and civil services.
- 1.2 Provide DOT and sample job application forms.

3.1 Teacher secures resource persons.



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand that the economic level of similar public service careers may vary with time and circumstances.

#### **PERFORMANCE OBJECTIVE**

1. To complete a graph showing

#### The student should be able:

the earnings of comparable personnel in three fields of public services.

2. To compare three public service jobs that no longer exist with three that have appeared in the last five vears.

3. To predict the future of at least two public service jobs.

#### **ACTIVITIES**

- 1.1 Students research available materials for salary information.
- 1.2 Students interview workers in chosen fields to ascertain reasons for salary variances.
- 1.3 Students report on economic differences for similar careers in large urban areas and small rural areas.
- 2.1 Students interview "Golden-Agers" about jobs that have ceased to exist.
- 2.2 Create a list of careers that disappeared since the civil war.
- 2.3 Students interview public service workers to learn about "new" careers.
- 3.1 Review list of careers that have disappeared and discuss reasons why with the class.
- 3.2 Create a list of public service careers which have emerged in the last 25 years.

#### PROCEDURES AND/OR **RESOURCE MATERIALS**

- 1.1 Provide Ohio Bureau of **Employment Services** materials.
- 1.2 Ask librarian to have materials available.
- 1.3 Consult local resources center for related materials.
- 2.1 Consult local resource file for speakers.
- 2.2 Provide appropriate text or resource materials.

3.1 Consult local resource file for speakers.



#### **CLUSTER VIII: Public Service**

#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills.

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop patterns of interpersonal behavior that will contribute to job success.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To develop a list of five behavior patterns peculiar to a specific occupation in the public service cluster.
- 2. To prepare a list of qualifications that are commensurate with a public service job of his choice.

3. To explain how patterns of interpersonal behavior can be acquired or can vary.

#### **ACTIVITIES**

- 1.1 Students participate in appropriate lessons.
- 1.2 Students compare personal traits required of persons working in the professions of chaplain, patrolman and lineman.
- 2.1 Students do library research to determine qualifications important to the performance of the occupation selected.
- 2.2 Using information obtained in the above exercise, students should create a list of traits peculiar to the selected occupations.
- 3.1 Students will write a list of observable behavior changes as individuals change characters in a role-playing exercise, e.g. policeman issuing a ticket to a stranger vs. catching the mayor speeding.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide *DOT* and other suitable references.



### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

- 3.2 Each student writes a theme comparing his behavior in a church with his behavior in school.
- 3.3 Have a public transportation dispatcher explain absenteeism and the problems it causes.
- 3.4 Students participate in a group discussion comparing absence from school and absence from work.



#### DEVELOPMENTAL AREA F: Decision-Making

OVERALL DEVELOPMENTAL OBJECTIVE NO. I: To realize that decision-making must be a conscious process when considering a career choice in the public service field.

### PERFORMANCE OBJECTIVE

#### The student should be able:

1. To list five public service careers that require much decision-making ability and five that require little.

#### **ACTIVITIES**

- 1.1 Have a panel compare the amount of decision making ability required in different careers.
- 1.2 Have a panel discuss consequences of decisions.
- 1.3 Organize class into panels allowing each to choose a subject that requires a decision.
- 2. To explain why career decisions cannot always be strictly on personal wishes.
- 2.1 Discuss the reasons why a person might accept a job in public service that he does not really want.
- 2.2 Have a student play the role of a committeeman in a council that is trying to decide whether to present to the voters a levy for a new swimming pool or a levy for a needed sewage disposal plant.
- 2.3 Interview several public services workers concerning personal conflicts on their jobs.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Conduct class unit on decision-making.
- 1.2 Secure resource person from industry.

2.1 Plan a trip to the local town council or board of education meeting.



### PERFORMANCE OBJECTIVE

3. To make a career decision and explain the basis on which it was made.

#### ACTIVITIES

3.1 Each student picks an occupation from the public service cluster and documents the reasons why he would or would not choose to enter the selected occupation.

- 3.1 Provide time for library research.
- 3.2 Provide commercially prepared library materials.
- 3.4 Provide counseling services.



#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To compare one's own abilities and values with those necessary to be employed in public services.

### PERFORMANCE OBJECTIVE

#### The student should be able:

- 1. To rank his values from most desirable to least desirable, and evaluate them in terms of five public service careers.
- 2. To list five moral values that an individual may develop that may or may not agree with those of a favorite career.

3. To assess his own aspirations, abilities, and qualities, and to identify at least three possible public service careers which could be acceptable.

#### **ACTIVITIES**

- 1.! Discuss society's values.
- 1.2 Students interview clergyman and policeman about local values.
- 1.3 Make a list of social values and rank them from most desirable to least desirable.
- 2.i Have a class discussion on personal values.
- 2.2 Make a composite list of the group's personal values.

  Find one that disagrees with society's and look for an explanation.
- 2.3 Students make personal lists of moral values and compare to society's.
- 3.1 Students use OVIS results to understand themselves better.
- 3.2 Have class project of evaluation of each other.

- 1.1 Use text materials if appropriate.
- 1.2 Check local resource file for speakers.
- 2.1 Consult local resources file for speakers.

- 3.1 Consult local resource file for field trips and appropriate plan personnel.
- 3.2 Guidance counselor interprets OVIS results.



JOB CLUSTER IX

**TRANSPORTATION** 



#### JOB CLUSTER IX

#### **TRANSPORTATION**

#### A. Rationale

The transportation cluster deals with the moving of people and materials by means of automotive and railroad vehicles, aircraft, fresh water and seagoing vessels, pipes and pumps. It includes loading, determining the number of passengers or the amount and kinds of materials being conveyed, directing the course of carriers, routing materials, servicing carriers and related services.

#### B. Transportation in the Curriculum

The transportation system has often held the key to economic development. It's successes and failures have had an effect on all segments of the economy. Since the far-reaching effects of the transportation system have been traditionally the concern of the social scientist, the social studies teacher will have many occasions to introduce students to career opportunities in this field. An understanding of the diverse occupations in transportation will give the student many avenues to use his talents and interests in its varied, but often related job opportunities.

#### C. Typical Careers in Transportation include:

Superintendent, Airport Flight Supervisor Superintendent of Way Harbor Manager Schedule Analyst Dispatcher Programmer Air Traffic Control Coordinator Meteorologist Conductor

Flying Instructor

Business Service Pilot Navigator Stewardess Railroad Fireman Locomotive Engineer Yard Masters Switchman Truck Drivers, Light Truck Drivers, Heavy

Commercial Pilot

Test Pilot

Trailer-Truck Drivers
Furniture Movers
Taxicab Drivers
Ambulance Drivers
Bus Drivers
Communication Specialist
Radio Technician (radio)
Instrument Technician
(repairman)
Communication—Teletypist
Salesman
Traffic Managers



#### **DEVELOPMENT AREA A: Individual and the Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand the role of forces in society that have an effect on occupations in transportation.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list individual requirements for ten transportation careers.

2. To list ways that organized

occupations.

labor has an important ef-

fect upon five transportation

#### **ACTIVITIES**

- 1.1 Discuss state license requirements for drivers, chauffeurs and truckers and the rationale for such regulations.
- 1.2 Have a student report differences in requirements for auto drivers and long-haul truck drivers.
- 1.3 Discuss physical requirements for professional drivers and civil aviation workers.
- 1.4 Have students report on Federal Aviation Authority approved schools.
- 1.5 Ask a speaker to discuss why the federal government employs many people in civil aviation.
- 2.1 Have groups report on labor and organized groups in different transportation occupations.
- 2.2 As a result of the research and reports, students can discuss with speaker such policies and practices as the following: weapons used by labor, seniority, and role in transportation occupations.

- 1.1 Provide lists of job requirements from highway patrol.
- 1.2 Occupational Outlook Handbook, 1972.
- 1.3 Arrange for speaker from Ohio patrol or FAA.

- 2.1 Refer to Occupational Outlook Handhook for working conditions in civil aviation and merchant marine.
- 2.2 Consult resource file for speaker from transportation labor union.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become knowledgeable about the basic performance skills needed in transportation occupations.

### PERFORMANCE OBJECTIVES

The student should be able:

2. To list twenty-five local

depth evaluation.

transportation careers and

select three for possible in-

1. To identify the main role of six occupations in transportation, and compare activities with his abilities and interests.

#### **ACTIVITIES**

1.1 Have groups study and report on the main responsibilities of various occupations.

2.1 Make a map of the area and identify employers.

- 1.1 Select commercial materials, books and audiovisuals or government publications.
- 1.2 Have science teacher, science student, or resource person, such as a dispatcher, demonstrate how weather data is used in transportation.
- 1.3 Consult local resource file for speakers.
- 2.1 Secure large map from county engineer.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand the education, training, and skill needed for transportation occupations.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To list and explain three major tasks he enjoys that are related to those found in transportation occupations.
- 2. To list three ways in which he can prepare for a career in transportation.
- 3. To explain the importance of manual dexerity, spatial and form relationship, clerical performance and eye-foot coordination needed by at least five transportation careers.

#### **ACTIVITIES**

- 1.1 Discuss ways school subjects relate to occupations in transportation.
- 1.2 Have students list tasks that are performed in school that are similar to those performed in transportation careers.
- 2.1 Assign groups of students to report on career preparation in the following activities: hobbies (eg. building models, reading automotive magazines); leadership in school organizations; fixing

household appliances, etc.

- 3.1 Have a counselor give an explanation of aptitudes needed in some transportation occupations and give a short demonstration of the GATB or similar test of manual dexterity and spatial relationships.
- 3.2 Have students view a film to determine eye-foot coordination or visit a driver education laboratory.
- 3.3 Students read a story about a long distance truck driver and other transportation workers and ask students to make a list of the skills required.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Have class unit on personal likes and dislikes.

2.1 Provide DOT, Vol. II, and Occupational Outlook Hand-book.



### PERFORMANCE OBJECTIVE

4. To list two of the occupations in transportation that would require the following types of training:

on-the-job training vocational school business course two-year technical college four-year college

#### **ACTIVITIES**

- PROCEDURES AND/OR RESOURCE MATERIALS
- 4.1 Have groups study and report on the level of education and training needed for selected occupations in transportation.
- 4.2 Class creates a job chart that shows the training required by selected occupations.
- 4.3 Students investigate and report opportunities in local areas and elsewhere in the following:
  - -vocational high schools
  - -technical schools
  - -college



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquire knowledge about the relationship between various occupations and related personal economics and life style.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list five transportation occupations and the life style that would be related to each.

- 2. To list salary levels of three transportation occupations in each of the following levels:
  - labor mid-management management

#### **ACTIVITIES**

- 1.1 Students view films on various transportation careers and discuss different life styles presented.
- 1.2 Prepare a chart comparing selected transportation occupations that have different life styles due to hours, fringe benefits, and peculiar advantages and disadvantages of occupations.
- 2.1 Have students prepare charts ranking occupations according to social importance and average income of workers.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check audiovisual department for transportation films.

2.1 Provide Occupational Outlook Handbook or local employment bureau information.



### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop the basic work attitudes and skills necessary for job entry and advancement in transportation careers.

### PERFORMANCE OBJECTIVES

The student should be able:

- 1. To list ten careers in transportation that have direct contact with the public, and thus require ample adjustment skills.
- 2. To list two attitudes and two communication skills important in public transportation careers.

- 3. To list at least two specific occupations in the transportation cluster that would relate to a life style consistent with his desires.
- 4. To identify ten careers in transportation where his qualifications and personal attitudes would suggest a desirable job adjustment.

#### **ACTIVITIES**

- 1.1 Arrange for a field trip on public transportation to bus terminal or airport and make observations of employees.
- 1.2 Students view films on transportation and list those careers that have direct public contact.
- 2.1 Students write a short paper on skills and attitudes used in the public relations aspects of transportation careers.
- 2.2 Students role-play difficult situations that can occur between transportation workers and their clients or passengers.
- 2.3 Discuss jobs that provide higher income and less status and vice versa.
- 3.1 Have students write a paper describing two economic life styles that could be realized from transportation careers.
- 4.1 Give the GATB to all students
- 4.2 Each student writes a self-analysis.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check with coordinator for list of possible field trips.

4.1 Contact Guidance Service.



#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To learn about decision-making techniques and their application in choosing an appropriate occupation in transportation.

### PERFORMANCE OBJECTIVES

The student should be able:

2. To list five transportation

and things.

careers that would relate to

his interest in data, people

1. To list five reasons why other people choose particular occupations and rank them in order of importance.

#### **ACTIVITIES**

- 1.1 Discuss possible reasons for selecting a transportation career including nature of work, education and training, earnings, and advancement opportunities.
- 1.3 Have students compile their lists to determine the most frequent reasons for selecting transportation careers.
- 1.4 Students can interview parents, teachers, or friends to discover how adults make their career choices.
- 2.1 From a long list of school and related tasks, ask each student to select activities he likes to do.
- 2.2 Have students categorize lists of transportation careers according to the data, people, things classification.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide a list of occupations in transportation.

2.1 Provide a list of job related tasks and transportation careers.



#### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

- 2.3 Students rate tasks (2.1) as to importance of data, people, things (use low, medium, high).
- 2.4 Using his data, people, things score each student selects five careers that might interest him.
- 2.5 Each student writes a paper telling why he prefers working with data, people or things.
- 3. To rate a list of ten transportation careers in terms of amount of decision-making ability required.
- 3.1 Students research career literature.
- 3.2 Interviews with employees to determine their abilities.
- 3.1 Have class lesson on decision-making abilities.



#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquire a knowledge of the relationship of personal interests, aptitudes, and achievements in evaluating careers.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To list five of his interests, hobbies or activities that relate to a transportation career.
- 2. To list five transportation occupations that would require training commensurate with his educational goals.

3. To list three qualities he has that would be helpful in achieving success in a transportation career.

#### **ACTIVITIES**

- 1.1 Students take an interest inventory and have results interpreted by counselor.
- 1.2 Have small groups of students discuss interests that could relate to transportation careers.
- 2.1 Have students compare the number of years of formal education they hope to achieve with a list of occupations that require that level of education.
- 2.2 Using the chart created in the previous activity, each student writes a short paper on how a person with his interests and goals might decide on a career in transportation.
- 3.1 Students study biographies of people who have had a successful careers in spite of handicaps.
- 3.2 Students interview transportation workers regarding personal qualities that lead to success.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check with guidance department for interest inventories.



JOB CLUSTER X

PERSONAL SERVICES



#### JOB CLUSTER X

#### PERSONAL SERVICES

#### A. Rationale

In the past, opportunities in service occupations have grown at about the same rate as the labor force as a whole. However, the United States Department of Labor predicts that employment in these occupations will grow faster as income and leisure time increases.

Students must be made aware of the great variety of occupational choices available to them in personal services. Educational requirements for entry into these occupations may vary from jobs requiring no special educational training beyond high school to those involving college degrees. Personality traits and special abilities may be as important as formal education for success in many of these occupations. Students should know that many people in service occupations increase their economic opportunities by going into business for themselves. In these cases a good basic education plus knowledge of business techniques is important.

#### B. Personal Services in the Curriculum

Personal service occupations may be studied in a number of junior high school subjects. Cosmetology and even barbering may be studied in home economics as this subject becomes more vocationally oriented. Science teachers may deal with opportunities in mortuary science and animal care; physical education instructors may relate to physical culture careers. Language arts and social studies teachers have opportunities to reinforce efforts by other subject teachers by an emphasis on the importance of communication and personal relation skills in these people-oriented occupations.

#### C. Typical careers in Personal Services include:

Veterinarian
Instructor, Director
Manager, Barber Shop
Funeral Director
Mortician
Service Industry, Manager
Barber
\*\*anicurist

Supervisor, Make-up
Cosmetologist
Beauty culturist
Facial operator
Shampooer
Wig Dresser
Masseur
Reducing machine Operator
Scalp treatment operator

Cooling Room Attendant
Dog Groomer
Animal Caretaker
Funeral Attendant
Cremator
Pet Shop attendant
Electrologist



#### CLUSTER X: Personal Service

#### DEVELOPMENTAL AREA A: Individual and Environment

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand the ways in which personal service occupations relate to the needs of society.

#### **PERFORMANCE OBJECTIVE**

The student should be able:

1. To list ten reasons why the personal service occupations are needed by society.

#### **ACTIVITIES**

- 1.1 Groups of students study and report on the importance of the various jobs within the occupational subheadings.
- 1.2 Students view films showing roles of personal services workers.
- 1.3 Students give short talks on the role each worker plays in society.
- 2. To list and describe five ways in which personal service occupations relate to the community as a whole.
- changing society, for example, barbering, health spas and funeral homes.
- 2.2 Have students interview personal service workers to determine their role in local community.
- 3. To prepare a list of ten community services supported by people in the personal service occupations.
- 4. To list three individual interests and/or abilities needed for successful employment in service occupations.

2.1 Discuss the changing roles of service occupations in a

- 3.1 Ask selected students to interview proprietors and workers to determine ways in which they support community services.
- 4.1 Students visit employees on the job and observe their activities.
- 4.2 Speakers visit class to relate what it takes to be successful in service occupations.

#### PROCEDURES AND/OR **RESOURCE MATERIALS**

- 1.1 Provide list of careers in the cluster.
- 1.2 Provide want ads, phone book and resources of the local Ohio Employment Bureau.
- 1.3 Consult audiovisual department for relevant films.
- 2.1 Consult local resource file for speakers in personal services.

- 3.1 Check local resource file for speakers.
- 4.1 Arrange for student visitations.
- 4.2 Invite speakers to class.



#### CLUSTER X: Personal Service

#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENT OBJECTIVE NO. 1: To increase the student's knowledge of the variety and complexity of occupations in personal services.

### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To write a short report describing the work performed in three occupations in personal services
- 2. To describe orally the data, people and things involved in the three selected occupations.

- 3. To list three examples of special vocational preparation needed in personal service occupations.
- 4. To rank five occupations according to degree of specialition required.

#### **ACTIVITIES**

- 1.1 Students interview workers concerning the tasks performed on their jobs.
- 2.1 Discuss the meaning of involvement with data, people, things.
- 2.2 Show films on personal service careers and discuss involvement with data, people, and things.
- 2.3 Students produce a skit showing the involvement of data, people, and things in several personal service occupations.
- 3.1 Review special vocational preparation as described in the *DOT*.
- 4.1 Field trips to personal service institutions that would show students levels of specialization.
- 4.2 Students interview workers in personal services regarding degree of specialization necessary.

- 1.1 Provide a list of personal service occupations.
- 2.1 Provide *DOT* for student reference.

- 3.1 Refer to *DOT*. Vol. II, pp. 652-653.
- 4.1 Check with coordinator for possible field trips to funeral homes, veterinarian hospital, beauty school, etc.
- 4.2 Develop observation forms and questionnaires.



#### CLUSTER X: Personal Service

#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To discover that educational experiences are directly related to job success in personal service.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list five occupations in personal service where proficiency in school subjects is a factor in success.

2. To list four ways he can pre-

pare himself for personal

education and training.

service occupations through

#### **ACTIVITIES**

- 1.1 Discuss ways in which skills learned in mathematics, science, and language arts are needed in personal service occupations.
- 1.2 Interview workers whose job depends on scientific knowledge or artistic ability to determine the role of school subjects in their jobs.
- 1.3 Given several job descriptions, students hypothesize about the importance of school success as related to several job descriptions.
- 1.4 Have students research jobs that are directly related to school subjects.
- 2.1 Have a rap session with representatives of several personal service training schools
- 2.2 Discuss what personal characteristics displayed by these representatives would make them good personal service workers.
- 2.3 Discuss extra-curricular activities, volunteer workers and organizations that would help students learn to relate to people.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Provide DOT, Vol. II, and commercially prepared career information.
- 1.3 Check local resource file for speakers.
- 1.4 Provide job descriptions including entry level skills.

- 2.1 Check local resource file for speakers.
- 2.2 Notify librarian so materials will be available.



### PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

- 2.4 Allow students to question resource speakers on ways to communicate effectively and to develop good personal relations.
- 2.5 Select certain skills required by personal service occupations and investigate hobbies and other activities that would help in skill development.



#### **CLUSTER X: Personal Service**

#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To recognize the relationship between various occupational roles and related personal economics and life styles.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list three ways that differences in life style are related to one's occupation.

#### **ACTIVITIES**

- 1.1 Discuss characteristics of acceptable life styles.
- 1.2 Each student either writes a description of his own acceptable life style or produces a chart with this information.
- 1.3 Groups of students can research earnings in personal service occupations at different levels.
- 2. To rate investment required to enter five selected careers in personal services.
- 3. To list beginning and average salaries for at least five personal services careers.
- 2.1 Use committees to research career resources.
- 2.2 Students make personal contacts to secure information.
- 3.1 Use department of labor reports.
- 3.2 Contact employers for wage scales.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Provide Occupational Outlook Handbook and career monographs.
- 1.2 Consult local resource file for speakers.

3.1 Develop rapport with employers to secure information.



#### CLUSTER X: Personal Service

#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop an understanding of the basic work habits and attitudes that are necessary for personal service occupations.

### PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list five qualification for selection of jobs in personal services.

2. To list four basic interests and abilities necessary for a successful job interview in personal service occupations.

3. To identify four social behavior skills necessary for good performance in personal service occupations.

#### **ACTIVITIES**

- 1.1 Have students select and report on requirements for specific careers.
- 1.2 Students plan, write and orally present a resume for a given personal services occupation including personal, family, work, and interest data.
- 2.1 Students interview an employment worker concerning proper interview techniques.
- 2.2 Have groups of students roleplay proper and improper interviews.
- 2.3 Discuss desirable and undesirable traits illustrated in role-playing.
- 2.4 Have students view films on job interviews and discuss good interview techniques.
- 3.1 Students interview workers in personal services to determine important positive behavior skills.
- 3.2 Have students role-play personal service jobs to portray the importance of personality and concern for people.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Obtain "How To Apply for a Job" by the Ohio Bureau of Employment Services.

2.1 Consult local resource file for speakers.

### PERFORMANCE OBJECTIVES

4. To list three social behaviors that could lead to advancement and three that could lead to dismissal in personal services careers.

#### **ACTIVITIES**

- 4.1 Students view films on getting promoted and discuss behaviors shown.
- 4.2 Students question resource person concerning favorable and unfavorable attitudes.

### PROCEDURES AND/OR RESOURCE MATERIALS

- 4.1 Check with audiovisual department for films.
- 4.2 Check local resource file for speakers.



#### **CLUSTER X:** Personal Service

#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help the student realize that the decision-making process is vital in personal service occupations.

### PERFORMANCE OBJECTIVES

## The student will be able: 1. To list five attributes that would lead to success in per-

# sonal service occupations.

- 2. To choose two sample personal service careers and list his personal attributes that would be required.
- 3. To list ten personal service careers that require a great amount of decision-making ability and ten where little such ability is necessary.

#### **ACTIVITIES**

- 1.1 Discuss attributes possessed by successful personal service workers the students know personally.
- 1.2 Make a chart of career attributes essential in personal services.
- 2.1 Have each student give a short talk on two occupations that best meet his interests, skills, educational achievements, needs, and relationships with others.
- 3.1 Students conduct class project to identify career lists.
- 3.2 Survey employees in the industry.

### PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Arrange for visit to employees.

3.1 Arrange for guidance counselor to talk to class.



#### CLUSTER X: Personal Service

#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To learn the importance of establishing tentative occupational guides based upon an understanding of self.

## PERFORMANCE OBJECTIVE

#### **ACTIVITIES**

## PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To list five important goals he sets for himself.
- 2. To list five personal service occupations that would satisfy or dissatisfy the needs of his personal temperament.
- 1.1 Have students list what they think they want most in their lifetimes.
- 2.1 Use inventory check lists to determine each student's likes and dislikes relative to work activities.
- 2.2 Have students match different temperaments with personal service occupations and list those that would or would not meet their needs.
- 2.1 Provide interest check lists.
- 2.2 Provide *DOT* for student reference.

- 3. To identify his strengths and weakness, likes and dislikes and abilities in terms of personal service careers.
- 3.1 Utilize OVIS results.
- 3.2 Students write self-analyses.
- 3 1 Teacher refers students to guidance office for interpretation of OVIS results.



#### **JOB CLUSTER XI**

#### **CONSUMER AND HOMEMAKING EDUCATION**

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#### JOB CLUSTER XI

#### **CONSUMER AND HOMEMAKING EDUCATION**

#### A. Rationale

The Consumer and Homemaking Education cluster is twofold in nature. Homemaking education primarily involves the discussion of jobs in these general areas; home management and maintenance, food service industry, family relationships and child care, and the clothing and textile industry. Consumer economics has traditionally been taught and discussed in home economics in the light of knowledge that is needed for proper home management. In recent years, public awareness of and developments in consumer education, protection and testing have opened up many new job areas that are connected to occupations in home economics.

#### B. Consumer and Home Economics in the Curriculum

Viewing this job cluster as twofold, one can relate the cluster to many subject areas other than home economics. The study of the general job areas of home management, food service, child care and clothing can be readily integrated into the existing home economics class program.

Consumer economics lends itself for discussion of occupations not only in home economics, but also in art, mathematics, science, social studies, industrial arts, and language arts or communications.

#### C. Typical occupations in Consumer and Home Economics include:

Babysitter Janitor Fashion model Seamtress/ Dressmaker Salesman (fashions, foods, toys, appliances) Writer (consumer or homemaking magazine) Food Processing Worker Homemaker (Community Social Service) Staff-artist or illustrator	Chef Home Furnishings Manager Day-school teacher Head Custodian Instructor, Modeling School Pattern Maker Buyer (fashions, foods, toys, appliances) Editor Quality control inspector Counselor-Family & Home Management Free-lance Fashion Artist or Illustrator	(consumer, homemaking, or
(consumer, homemaking or fashion magazine)		fashion magazine)



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#### CLUSTER XI: Consumer and Homemaking Education

#### DEVELOPMENTAL AREA A: Individual and Environment

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To increase one's knowledge of the interdependency of the individual and environment on occupations in consumer and homemaking education economics.

#### PERFORMANCE OBJECTIVE

The student should be able:

- 1. To choose a general area of consumer and homemaking education and name five careers in that area, explaining how certain individuals in society are dependant upon the services offered by these occupations.
- 2. To write a short paper describing his dependency on three or more occupations in this cluster for things he is accustomed to having.
- 3. To state orally a list of three or more routine jobs he would do as a homeowner that could be full-time occupations for some people.

#### **ACTIVITIES**

- 1.1 Students should choose and research jobs in a general area related to this cluster, e.g.; home management and maintance, food service industry, family relationships and child care, clothing and textile industry, consumer education.
- 2.1 Discuss occupations in this cluster that affect everyday living.
- 2.2 Have students read papers in class for further discussion.
- 3.1 Invite professional washers, rug cleaners or painters to address class.
- 3.2 Role-play a husband and wife discussing jobs they have to do around the home during "spring cleaning."

- 1.1 i vide students with handout sheets or list on board the general areas in the cluster and examples of related job.
- 1.2 Check media center and library for necessary information.
- 2.1 Check audiovisual department for filmstrip or movies related to the cluster.
- 3.1 Consult local resource file for professionals in home care or repair services.



#### **CLUSTER XI: Consumer and Home Economics**

#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop a greater knowledge of the many and varied occupations available in the consumer and home economics cluster within the local community.

#### PERFORMANCE OBJECTIVE

#### The student should be able:

1. To identify in writing or orally the seven general areas of employment in this cluster (see Appendix) and list two or more occupations in each area.

2. To enumerate at least ten jobs in this cluster that are readily available within the local community.

3. To choose one of the seven general areas from the flow chart and describe the job requirements needed for at least five different occupations in that area.

#### ACTIVITIES

- 1.1 Study copies of flow chart with the class and identify jobs available in the local community under each area.
- 1.2 Students refer to the *DOT* for more examples of jobs in each area.
- 1.3 Divide class into groups according to interest. Have each group make an in-depth study of one of the general areas and reports to the entire class their findings.
- 2.1 Through class discussion or teacher lecture, define area industries, businesses or agencies that offer consumer or home economics jobs.
- 2.2 Tour various businesses, industries or agencies that have jobs related to this cluster.
- 3.1 Have speakers from various areas of consumer and homemaking occupations address class.
- 3.2 Have students do independent research or interviewing of local employees.

- 1.1 Refer to U.S.O.E. flow charts for seven areas (see Appendix).
- 1.2 Make *DOT* available for student use.
- 1.3 Contact librarian so that material will be available for group work.
- 2.1 Refer to local industry or business guide or Chamber of Commerce for list of employers.
- 2.2 Contact coordinator for field trips.
- 3.1 Consult local resource guide or State Employment Agency for speakers.

#### CLUSTER XI: Consumer and Homemaking Education

#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To develop a greater knowledge of the skills, education, and training needed in occupations related to consumer and homemaking education.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To name at least three careers at each job performance level: (entry, mid- management, and professional) and the skills and education needed for each of these careers.

#### **ACTIVITIES**

- 1.1 Discuss the jobs students perform in their own homes that require no formal education and training.
- 1.2 Have students wash and iron clothes, make a bed, practice basic child care and cooking a meal in class; relate these to jobs found in local community.
- 1.3 Show films illustrating jobs that require secondary or some post-secondary education.
- 1.4 Have each student list and discuss other jobs at the mid-management level not seen in the film.
- 1.5 Show film describing careers requiring four years of college or more, and discuss these with class.
- 1.6 Have a student interview local home economics teacher concerning her education and training.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check with audiovisual department for related films.



## PERFORMANCE OBJECTIVE

# 2. To name at least one job in each performance level that is found in their own school and describe the training needed for that job.

#### **ACTIVITIES**

- 2.1 Providing the school has a cafeteria, ask the dietitian, head cook, and a worker to give explanations of their jobs.
- 2.2 Students interview school personnel involved in jobs at each performance level.
- 2.3 Tour cafeteria and point out different jobs.
- 3. To name at least two jobs at each performance level that can be found in local institutions, stores or factories.
- 3.1 Tour a local institution, factory or store and point out specific jobs that require different levels of education and training in home economics.
- 3.2 Invite speakers in from local institutions, factories or stores to discuss levels of home economics employment available.
- 3.3 Have students research and write a report listing two jobs at each level that can be found in nearby factories, institutions, or stores.

## PROCEDURES AND/OR RESOURCE MATERIALS

2.1 Consult cafeteria manager for availability of speakers and tour of cafeteria.

3.1 Consult local resource file for speakers and field trips.



#### CLUSTER XI: Consumer and Homemaking Education

#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquaint students with the economic rewards possible in pursuing occupations in consumer and homemaking education.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To choose two or more occupations that interest him and list current salaries or wage scales for each job.

2. To describe in writing or orally the amount of time and expense that would be required to obtain the necessary skills, education or training needed for one occupation in which he has expres-

sed interest.

#### **ACTIVITIES**

- 1.1 Students research available statistics for current salaries or wage scales.
- 1.2 Students interview people who are employed in jobs which interest the students.
- 1.3 Students write to employers or employment agencies for typical wages or salaries paid to individuals on these iobs.
- 1.4 Students check job listing in newspapers for wages or salary figures.
- 1.5 Have class prepare large wall chart compiling their findings.
- 2.1 Students research their interest areas by one of the following means:
  - -going to the library for research material,
  - interviewing people employed in these occupations.
  - asking school counselor or career coordinator personnel for information.

## PROCEDURE AND/OR RESOURCE MATERIALS

1.1 Check library for research material such as Department of Labor Statistics, or contact local State Employment Agency.

- 2.1 Check library for needed information.
- 2.2 Invite a counselor or career coordinator to talk to the students.



## PERFORMANCE OBJECTIVES

3. To compare the differences between occupations in this cluster that provide short-term employment with those that provide long-term employment.

#### **ACTIVITIES**

- 3.3 Make a chart listing of all the occupations researched in the above activities.
- 3.2 Through class discussion, determine which jobs provide wages, but little incentive for advancement and those that are, or could lead to, profitable full-time careers.
- 3.3 Debate the topic "Are monetary rewards the only reasons for seeking a certain job?" in class.

## PROCEDURES AND/OR RESOURCE MATERIALS

3.3 Contact employers for lists of part-time and full-time positions.



#### **CLUSTER XI:** Consumer and Home Economics

#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To instill in students the importance of developing good personal behavior and interpersonal relationships that will lead to job success.

## PERFORMANCE OBJECTIVE

#### The student should be able:

1. To choose two or more jobs of interest in this cluster and explain the personal attributes needed to attain each job.

2. To write a resume that could be sent to an employer when seeking a consumer or homemaking job.

3. To develop a list of items explaining what would be expected of him and what he would expect of fellow workers.

#### **ACTIVITIES**

- 1.1 Have students research their job interests to find the skills and attributes required to perform competently at these jobs.
- 1.2 Students contact and interview employers or employees involved with these jobs and report on their findings.
- 2.1 Students construct a sample resume and explain its contents, including: marital status, age, reasons for wanting job, references, experience.
- 2.3 Role-play a job interview by having a student or teacher act as employer who reads the resume then interviews person who wrote it.
- 3.1 Arrange for a personnel director to discuss what is expected of employees.
- 3.2 Discuss common expectations of anyone who works on a job that requires working for or with other people.
- 3.3 Role-play conflict situations between employer-employee, foreman-worker, teacher-student and discuss proper procedures for solving the conflict.

## PROCEDURES AND/OR RESOURCE MATERIALS.

1.1 Have DOT or job pamphlet available which list educational and other requirements.

3.1 Check local resource file for speakers.



#### CLUSTER XI: Consumer and Homemaking Education

#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become familiar with the steps involved in decision-making, and to learn how to apply it to career choice decisions in consumer and homemaking education.

## PERFORMANCE OBJECTIVE

#### The student should be able:

1. To obtain pertinent information about three occupations in consumer and homemaking education which is vital to job selection.

2. To categorize certain interests, traits, and/or talents that may be needed for two or more jobs of interest in the consumer and homemaking cluster.

#### **ACTIVITIES**

- 1.1 Have students do independent research in the library for information which they believe is pertinent to career choice.
- 1.2 Have students interview people who have jobs in the students' interest areas and write a report on their findings.
- 1.3 Have students discern the availability of certain jobs by reading newspaper wantads or checking with State Employment Services or local employment agencies.
- 2.1 Construct a sample chart using the job of interior decorator.

#### Interests:

- —working indoors
- -architecture
- ---design
- · -art
- ---working with materials and colors
- -- other interests

#### Traits:

- —likes to work with people and things
- likes to take abstract ideas and turn them into concrete examples
- --- other traits

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Arrange for class to visit library career center.

2.1 Provide students blank charts.

## PERFORMANCE OBJECTIVE

#### **ACTIVITIES**

## PROCEDURES AND/OR RESOURCE MATERIALS

#### Talents:

- usually good at art and design
- —able to express ideas to people
- -other talents
- 2.2 Have students make a similar chart for each job in which they have an expressed interest. The chart should include the name of the job, related interests, traits, and talents that may be needed for the job.
- 2.3 After completing charts, have students check the interests, traits and talents which they possess or believe they could develop.
- 3. To select two or more jobs in this cluster, identify the positive and negative aspects of those jobs and explain the importance of these aspects on the desirability of the jobs.
- 3.1 Invite speakers who have jobs in the consumer and home economics cluster to explain negative and positive aspects of their jobs.
- 3.2 After researching jobs of interest, students should make a list of what they think are positive and negative aspects of working at that job.
- 3.1 Consult local resource file for speakers.



#### CLUSTER XI: Consumer and Homemaking Education

#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To recognize the importance of one's own interests, aptitudes, values, and feelings in relation to the selection of a career in consumer and homemaking education.

### PERFORMANCE OBJECTIVE

The student should be able:

1. To give evidence that his own interests and aptitudes could lead to a career in consumer and homemaking education.

#### **ACTIVITIES**

- 1.1 Administer the OVIS or other similar interest surveys and compare results with jobs in this cluster.
- 1.2 Students take General
  Aptitude Test Battery or
  other aptitude tests and
  review results as they relate
  to specific jobs in this
  cluster.
- 1.3 Students select two or more jobs in which they have expressed interest and list special aptitudes needed for those jobs.
- 1.4 Students take simplified aptitude tests which relate to specific job chosen in 1.3.
- 2.1 After listing school subjects liked and disliked, students compare these with chosen jobs to determine if a student's interests are similar to interests needed to perform at those jobs.
- 2.2 Have a panel of students explain to the class how extracurricular activities in which they participate could be associated with jobs in consumer and home economics.

## PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Check with counselor or coordinator for availability of interest and aptitude tests and time needed for administration.
- 1.2 Check on availability of aptitude tests for specific jobs in consumer and home economics.

2. To explain how his interests in school subjects or extracurricular activities are related to jobs available in consumer and homemaking education.

#### PERFORMANCE OBJECTIVE

3. To review his own leisure-time activities and hobbies, relating them to possible career choices in consumer and homemaking education.

#### **ACTIVITIES**

3.1 The class prepares bulletin board or display showing hobbies and leisure-time activities and the jobs they relate to in this cluster.

Use the following as an example:

3.1 Provide students with cameras and films.

PROCEDURES AND/OR

**RESOURCE MATERIALS** 

leisure-time

career

sewing

dressmaker/

tailor

painting or drawing

fashion artist interior designer

cooking

chef, cook,

dietitian

babysitting

nursery school

teacher

construction models

toy designer design engineer

3.2 Students give an example of at least one job in consumer and homemaking education that could relate to their leisure-time activities or hobbies.



# JOB CLUSTER XII HOSPITALITY AND RECREATION



#### JOB CLUSTER XII

#### HOSPITALITY AND RECREATION

#### A. Rationale

This cluster covers a vast and ever-expanding area of occupations. As more leisure time becomes available to many Americans, the demand for hospitality and recreation facilities will increase. Coupled with this demand for more facilities will be the need for more trained personnel to fill the many and varied jobs related to leisure-time activities.

Some jobs in this cluster overlap with those found in other clusters such as environment, natural resources, health, personal services and others. Careers in this cluster involve areas such as: hotel-motel management, resorts, parks, youth services, medical recreation, physical education, commercial recreation and tourism to name a few. A more detailed break-down can be seen in the occupational flow charts.

#### B. Hospitality and Recreation in the Curriculum

Due to the variety of careers in this cluster, discussion in any of the subject areas is practicable and reasonable. The subject area most closely related would be physical education, due to its involvement with recreation. A review of the sample careers and occupational flow charts (see Appendix) can help one decide how extensively this guide can be used in the various subject areas.

Water Safety Instructor

#### C. Typical careers in Hospitality and Recreation include:

Lifeguard Park Maintenance Worker Golf Course Maintenance Worker YMCA/YWCA Physical **Education Teacher** Ski Instructor Guide, Historical Site **Assistant Coach** Clerk and Travel Agency Recreational Vehicle Maintenance Man Summer Camp Counselor Auto-Racing Mechanic Recreation Therapy Aid Animal Keeper Amusement Park Ride Operator Actor/Actress Desk Clerk, Hotel/ Motel Resort

Park Ranger Greenskeeper YMCA/YWCA Recreation Director Ski School Director Historian of Historical Site Head Coach Tour Director Recreational Vehicle Salesman Summer Camp-Program Director Auto-Racing Driver Recreation Therapy Leader Zoological Curator Amusement Park Maintenance Manager Director (theatre) Assistant Manager-Hotel/ Motel resort

Swim Club Manager Park Manager Golf Course Superintendent YMCA/YWCA Executive (membership, program, etc.) Ski-Resort Manager Director of Historical Site Athletic Director Travel Agent Owner Recreational Vehicle Agency Summer Camp-Superintendent Auto-Racetrack Owner/ Manager Director of Recreation Therapy Zoo Director Amusement Park Director/ Manager Producer (theatre) Owner/Manager of Hotel/ Motel resort.



#### **CLUSTER XII: Hospitality and Recreation**

#### DEVELOPMENTAL AREA A: Individual and Environment

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To discover the inter-dependency of the individual and environment on occupations in hospitality and recreation.

## PERFORMANCE OBJECTIVE

The student should be able:

1. To choose a general area of interest in this cluster, name at least five careers in that area, and explain how they, or certain individuals in society, are dependent upon the services offered by these occupations for hospitality or recreation.

2. To, after reviewing all the areas in this cluster, make a list of at least ten of the occupations with which he has come in contact with in the last year.

#### **ACTIVITIES**

- 1.1 Students choose and research jobs in a general area related to hospitality and recreation, for example,
  - -resorts
  - —hotel/motel management
  - parks
  - -youth services
  - --medical recreation
  - -physical education
  - -commercial recreation
  - -tourism
  - -industrial recreation
  - -other areas.
- 2.1 Students should compare the lists they have prepared.
- 2.2 Have some students develop a large chart or bulletin board from information gathered.
- 2.3 Chart areas in which most occupations are listed and the types of occupations.

- 1.1 Provide hand-out of general areas and examples of related jobs.
- 1.2 Check audiovisual center for films.



#### **PERFORMANCE OBJECTIVES**

#### 3. Describe three or more hobbies or recreational activities he or his family have done that are connected with or could lead to full-time recreation occupations.

#### **ACTIVITIES**

- PROCEDURES AND/OR **RESOURCE MATERIALS**
- 3.1 Have students role-play the planning of an imaginary vacation trip. The remainder of the class note the occupations in hospitality and recreation that these people would come in contact with in the course of their trip.
- 3.2 Ask each student to mention at least one hobby or recreational activity they do regularly and explain how this is connected to a job or jobs in this cluster.



#### **CLUSTER XII:**

#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become familiar with the many, varied occupations in the hospitality and recreation cluster within the community.

## PERFORMANCE OBJECTIVE

The student should be able:

 To identify, in writing or orally, the five general areas of employment in this cluster (as found in the flow chart) and to list two or more occupations in each area.

2. To give examples of at least

or agencies.

ten jobs in this cluster that

are found in local businesses

#### **ACTIVITIES**

- 1.1 Explain and discuss the flow chart (see Appendix) and identify jobs available in the community under each area.
- 1.2 Divide class into groups according to interest. Have each group make an in-depth study of one of the general areas, listing jobs found in the community, employment conditions, and salaries, and report their findings to the class.
- 1.3 Have students make a display showing the five general areas of this cluster, and sample jobs under each.
- 2.1 Through class discussion or teacher lecture, define area industries, businesses, or agencies that offer jobs in hospitality and recreation.
- 2.2 Tour various businesses, industries, or agencies that have jobs related to this cluster.

## PROCEDURES AND/OR RESOURCE MATERIALS

- 1.! Provide USOE flow charts, DOT and Occupational Outlook Handbook.
- 1.4 Ask librarian to have materials available for student use.

2.1 Refer to local resource guide or Chamber of Commerce for job areas in the community.



## PERFORMANCE OBJECTIVE

3. To choose one of the five general areas from the flow chart and describe the job requirements for at least five different occupations in that area.

#### **ACTIVITIES**

- 3.3 Have students do independent research or interview local employees who work at hopsitality and recreation jobs.
- 3.2 Invite speakers from different job areas of hospitality and recreation to address class regarding job requirements.

## PROCEDURES AND/OR RESOURCE MATERIALS

3.1 Consult local resource file for speakers.



#### **CLUSTER XII: Hospitality and Recreation**

#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To become knowledgeable about the skills, education, and training needed in occupations related to hospitality and recreation.

## PERFORMANCE OBJECTIVE

#### The student should be able:

1. To list at least three careers in each of the hospitality and recreation subgroups by levels of job performance—entry, mid-management, and professional—and to describe the skills and education needed for each job.

2. To name at least one job in each performance level that is found in his school system and explain the education and training needed for that job.

#### **ACTIVITIES**

- 1.1 Define and discuss the terms entry, midmanagement and professional as related to careers.
- 1.2 Have each student research careers and complete a paper or chart that classifies careers according to job performance levels.
- 1.3 Show films that depict hospitality and recreation jobs. Use these as discussion material to define job performance levels.
- 2.1 Ask school personnel involved in recreation-based occupations to speak to classes, e.g. physical education teacher, coach, atheletic director.
- 2.2 Students interview or write reports about jobs at each performance level in which school personnel are involved.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 See audiovisual department for available material.

2.1 Consult local resource file for speakers.



## PERFORMANCE OBJECTIVE

3. To name at least two jobs at each performance level that can be found in local institutions, youth agencies, stores, factories, or businesses.

#### **ACTIVITIES**

- 3.1 Tour local institutions, agencies, factories or businesses to view jobs that involve hospitality and recreation.
- 3.2 Speakers from local establishments address class on jobs they do in hospitality and recreation areas.
- 3.3 Have each student research and write a report listing two jobs at each level of performance that are found in local establishments.

## PROCEDURES AND/OR RESOURCE MATERIALS

3.1 Consult local resource file for field trips and speakers.



#### **CLUSTER XII: Hospitality and Recreation**

#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To acquaint students with the economic rewards possible in pursuing occupations in hospitality and recreation.

## PERFORMANCE OBJECTIVE

The student should be able:

1. To choose two or more occupations in hospitality and recreation that interest him and list current salaries or wage scales for that job.

2. To describe in writing or orally the amount of time and expense required to obtain the necessary skills, education, or training needed for the occupation in which he has expressed interest.

#### **ACTIVITIES**

- 1.1 Provide time for library research on available statistics for current wage scales or salaries.
- 1.2 Students write or call employers or employment agencies for information on typical wages or salaries paid for the selected jobs.
- 1.3 Students check listings in newspapers for wage and salary figures.
- 1.4 Students interview people employed in hospitality and recreation jobs and report findings to class.
- 2.1 Students research their interest areas by:
  - using library research materials.
  - ---interviewing people employed in these occupations.
  - -- asking school counselor or career orientation personnel for information.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check library for research material such as the Department of Labor Statistics or contact the local State Employment Service.

- 2.1 Check library for needed information.
- 2.2 Ask counselor or career coordinator to talk to class.



## PERFORMANCE OBJECTIVE

# 3. To identify the financial differences between occupations in this cluster that provide short-term employment, with those that provide long-term employment.

#### **ACTIVITIES**

**PROCEDURES AND/OR** 

**RESOURCE MATERIALS** 

- 3.1 Make a chart listing all the occupations researched in the above activities. Through class discussion, determine which jobs provide wages but little incentive for advancement, and those that are, or could lead to, profitable full-time careers.
- 3.2 Have a class discussion or debate on "Are monetary rewards the only reasons for seeking a certain job?"



#### CLUSTER XII: Hospitality and Recreation

#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills.

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To instill in students the importance of developing good personal and inter-personal behavior that will lead to job success.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To choose at least two careers in this cluster and be able to explain the personal attributes needed to attain and perform competently in these careers.

2. To fill out an application form or write a resume that would be given to an employer when seeking a job in hospitality or recreation.

3. To develop a list of skills that would be expected of him or his fellow workers in a specific job in hospitality and recreation.

#### **ACTIVITIES**

- 1.1 Have students research jobs that interest them in hospitality and recreation to find out what skills and attributes are needed to hold these jobs.
- 1.2 Students contact and interview employees or employers in these jobs and report their findings to the class.
- 2.1 Fill out sample job application forms.
- 2.2 Students explain contents of a resume, e.g. marital status, age, experience, references, reasons for seeking a job.
- 2.3 Write a sample resume.
- 2.4 Role-play a job interview.
- 3.1 Discuss the personality and other requirements needed for a job that requires working with or for other people.
- 3.2 Have the class develop a list of common attributes that people working in hospitality and recreation might have.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check library for materials available.

2.1 Devise application form or contact local employers for samples.



#### PERFORMANCE OBJECTIVE

#### **ACTIVITIES**

3.3 Each student selects a job

## PROCEDURES AND/OR RESOURCE MATERIALS

- that interests him in this cluster and describes what would be expected of him.
- 4. To compare three careers in hospitality and recreation in regard to amount of work adjustment needed on the job.
  4.1 Students analyze the jobs to determine the different tasks performed and extent of variety involved.
- 4.1 Use career literature.
- 4.2 Students interview workers on the job.



#### CLUSTER XII: Hospitality and Recreation

#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To provide the student with the ability to recognize the steps involved in the process of decision-making and the knowledge to apply these steps to career choice decisions in hospitality and recreation.

#### PERFORMANCE OBJECTIVE

#### The student should be able:

1. To locate and obtain pertinent information about three occupations in hospitality and recreation careers necessary for job selection decisions.

2. To categorize certain interest, traits and/or talents that may be needed for two or more jobs in the hospitality and recreation cluster in which he has a specific interest.

#### **ACTIVITIES**

- 1.1 Assign students independent research in the library for information which they believe is necessary when considering the selection of a specific occupation in this cluster.
- 1.2 Students interview people who have jobs in their interest areas and write a report on the interview.
- 1.3 Students ascertain the availability of certain jobs by reading newspaper want ads or by checking with State Employment Services or private agencies.
- 2.1 Students make a chart for each job in which they have an expressed interest. List job, then make three columns and list interest, traits and talents that may be needed for the job.

#### Job:

Physical Education Instructor

#### Interest:

- --sports
- athletic competition
- ---working outdoors, and indoors
- -physical activity on the job
- -other interests

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- 1.1 Arrange for class to visit library or career center.
- 1.2 Provide open-ended interview forms.

- 2.1 Students interview workers.
- 2.2 Provide films, etc., which describe hospitality and recreation jobs.



## PERFORMANCE OBJECTIVE

#### **ACTIVITIES**

## PROCEDURES AND/OR RESOURCE MATERIALS

#### Traits:

- -likes to work with people
- —wants to instill in others an interest in health and physical activity.
- able to communicate to others how to do certain physical activities

#### Talents:

- —usually good at athletics
- —able to instruct with large groups of people other talents
- 2.3 After completing charts, students check the interests, traits and talents which they possess or believe they could develop.
- 3. To select two or more jobs in this cluster, identify the positive and negative aspects of those jobs and explain the importance of these aspects on the desirability of those jobs.
- 3.1 After researching jobs of interest, students should make a list of the positive and negative aspects.
- 3.2 Invite speakers who have jobs in hospitality and recreation to explain negative and positive aspects of their jobs.
- 3.1 Consult local resource file for speakers.



#### **CLUSTER XII: Hospitality and Recreation**

#### DEVELOPMENTAL AREA G: Self

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help the student evaluate interests, aptitudes, values, and feelings in regard to choosing a career in hospitality and recreation.

#### PERFORMANCE OBJECTIVE

The student should be able:

1. To evaluate his own interests and aptitudes with at least three careers in hospitality and recreation.

2. To explain how his interests

in school subjects or extra-

#### **ACTIVITIES**

- 1.1 Administer and interpret OVIS or other similar interest survey and compare individual results with jobs in this cluster.
- 1.2 Administer the GATB or other aptitude tests and review results as they relate to essential aptitudes for specific jobs in hospitality and recreation.
- 1.3 Have each student list two or more jobs in which he has expressed interest and list special aptitudes needed for those jobs.
- 1.4 Allow students to take simplified aptitude tests which relate to specific jobs chosen.
- 2.1 Each student lists the school subjects liked and disliked. Students compare these lists with jobs chosen in 1.3 to see if a student's interests correlate with his subjects.
- 2.2 Have a panel explain how extra-curricular activities in which they participate could be assoicated with job areas in this cluster.

## PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Check with counselor or coordinator for availability of OVIS, GATB and time needed for administration and interpretation.
- 1.2 Check on availability of aptitude tests for specific jobs in hospitality and recreation.

curricular activities are related to jobs in hospitality and recreation.

## PERFORMANCE OBJECTIVES

#### 3. To review his own leisuretime activities and hobbies and show how they relate to at least three jobs in hospitality and recreation.

#### **ACTIVITIES**

## PROCEDURES AND/OR RESOURCE MATERIALS

3.1 Create a chart on the board that relates leisure-time activities and careers, such as:

Leisure-Time Career
golf golf pro
hunting game warden/
fishing professional
guide

church activities church recreation director

babysitting playlady-childrens day care

hiking-camp- camp counselor or director

photography professional photographer at atheletic events

playing musi- professional cal instrument musician

- 3.2 Have the class devise a bulletin board or display showing hobbies and leisure-time activities and the jobs they relate to in this cluster.
- 3.3 Students give an example of at least one job in hospitality and recreation that could relate to their leisure-time activities and/or hobbies.



JOB CLUSTER XIII

FINE ARTS AND HUMANITIES

#### **JOB CLUSTER XIII**

#### ARTS AND HUMANITIES

#### A. Rationale

The arts and humanities add much to the culture of our society. This cluster is the culmination of culture handed down from the beginning of history. Each generation adds its contribution and passes that knowledge down to the next generation through arts, performing arts, literature, history and music. Under the fine arts classification, we find the categories of creating, performing, performing arts and design, performing arts and production, artistic management, visual and graphic design and media.

#### B. Arts and Humanities Careers in the Curriculum

Study of arts and humanities would be found primarily in the areas of reading or literature, social studies, English, art, and music. The trend of teaching history and English simultaneously is greatly enhanced by utilizing the cluster approach. In addition, much of this material could be covered by teachers of art and music or with the unit approach; art and music teachers might act as resource people who aid the classroom teacher as he incorporates the arts and performing arts into curriculum design.

#### C. Typical Careers in Arts and Humanities include:

Novelist

Poet

Essavist

Foreign Language Teacher

Interpreter

Tour Guide

Historian

Museum Curator

Anthropologist

Artists

Arranger

Lyricist

Actor

Conductor

Set Designer

Miniature-Set Designer Wardrobe Coordinator

Producer

Manager

Choreographer

Public Relations Director

Personnel Director

Illustrator

Industrial Designer

Fashion Designer

Furniture Designer

Film Editor

Cameraman

Sound Control Operator

Film Processor



#### **CLUSTER XIII: Arts and Humanities**

#### DEVELOPMENTAL AREA A: Individual and Environment

DEVELOPMENTAL GOAL NO. 1: To help students recognize the available careers in the arts and humanities.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To identify five occupations which contribute to permanent recording of our culture for future generations in the areas of arts and humanities.

#### **ACTIVITIES**

- 1.1 Have students read exploratory career summaries or career briefs.
- 1.2 Discuss the ways in which culture is recorded in art, music, performing arts and literature.
- 1.3 Have students list occupations in arts and humanities which reflect our culture.
- 1.4 Have a docent from an art institute speak with class on role of institute.
- 2. To compare the mediums for expression in arts and humanities and identify one type of occupation in each medium which reflects him and his environment.
- 3. To determine the individual interests and abilities necessary for three different careers in the arts and humanities.
- 2.1 Have each student select and read career briefs on careers such as writers, dancers, musicians, actors, etc.
- 3.1 Have students study the nature of careers in this cluster.
- 3.2 Students discuss careers with people now working in this field.

- 1.1 Provide adequate resources.
- 1.2 Consult local resource file for speakers.

- 2.1 Provide career briefs, DOT,
  Occupational Outlook
  Handbook and other
  references.
- 3.1 Have a study unit in careers in arts and humanities.
- 3.2 Secure career literature in this field.
- 3.3 Arrange interview.



#### **CLUSTER XIII: Arts and Humanities**

#### **DEVELOPMENTAL AREA B: World of Work**

DEVELOPMENTAL GOAL NO. 1: To orient the student to the world of work and problems faced by persons engaged in careers in arts and humanities.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To select three possible careers in arts and humanities and explain their value to the total balance of society.

#### **ACTIVITIES**

- 1.1 Arrange a job fair with a choice of speakers.
- 1.2 Ask students to list three work areas which interest them most and tally the results.

- 1.1 Arrange speakers.
- 1.2 Coordinate teacher activities.
- 1.3 Meet with teachers in your building and divide responsibilities so each teacher will locate and invite two of the speakers so the groups will be small.
- 1.4 List speakers scheduled and let students list first, second and third choices.
- 1.3 Arrange two twenty-five minute periods with each student scheduled for two speakers.
- 1.6 Ask the home economics class to plan the refreshments, art class to make posters and the music department to provide music for first five minutes and group change.
- 2.1 Consult local resource file for field trip.
- 2.2 Provide tape recorders and tape.

- 2. To identify a problem concerning technology in radio, television, theater or motion pictures and explain how the problem may affect the occupations of persons engaged therein.
- 2.1 Visit a television and radio station to interview television and radio personalities.
- 2.2 Arrange to visit a rehearsal of an opera company, civic music group or rock group and interview the musicians.



## PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

2.3 Have buzz sessions in which

- 3. To identify at least three possible arts and humanities careers in the local area that might be of interest to him.
- the students discuss the interviews and decide which problems are foremost.
- 3.1 Create a list of careers and then determine their makeup.
- 3.2 Have students reread career briefs for background material. Have each student select and read a book or an article and then compare experiences in the book to those discovered in the interviews.
- 3.1 Secure career briefs, leaflets, films and/or other items for student use.
- 3.2 Arrange for resource persons to visit class.



#### **CLUSTER XIII: Arts and Humanities**

#### **DEVELOPMENTAL AREA C: Education and Training**

DEVELOPMENTAL GOAL NO. I: To become knowledgeable about the relationship between a career in arts and humanities and type of education required.

## PERFORMANCE OBJECTIVES

## The student should be able: 1. To identify the training necessary for careers in arts and humanities.

# 2. To identify the educational requirements for selected occupations in arts and humanities.

#### **ACTIVITIES**

- 1.1 Have a group of students interview the music teachers in the school and write to a music school for educational information.
- 1.2 Contact local and state universities and colleges for educational requirements and courses offered.
- 1.3 Have each student write a short paper on ways of preparing for careers that interest him in acting, dancing, music, and so forth.
- 2.1 Have each student read educational requirements found in career summaries and briefs.
- 2.2 Invite speakers from community college, state university, art institute, and museum of natural history to discuss their training with students.

- 1.1 Provide tape recorder and tape for interviews.
- 1.2 Provide names and addresses of colleges and universities.

- 2.1 Provide reference materials.
- 2.2 Consult local resource file for speakers.

## PERFORMANCE OBJECTIVES

## 3. To demonstrate his ability to use skills needed by persons engaged in at least three occupations in arts and humanities.

#### **ACTIVITIES**

- PROCEDURES AND/OR RESOURCE MATERIALS
- 3.1 List typical skill terms on the board and discuss them with the class:
   observing hypothesizing interpreting imagining summarizing
- 3.2 Accent areas of social studies, language arts, music, art and recreation for development in areas of arts and humanities.



#### **DEVELOPMENTAL AREA D: Economics**

DEVELOPMENTAL GOAL NO. 1: To orient the student to the economic aspect of careers in the arts and humanities.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To identify three careers in arts and humanities and relate the value of a fair day's work for a fair day's pay.

2. To create a budget based on

sons employed in three

humanities jobs.

specific levels of arts and

the salaries received by per-

#### **ACTIVITIES**

- 1.1 With the class, plan a mass production project such as the construction of some type of ceramic molding and painting project or Tiki carving with each doing only one small section.
- 1.2 Keep a list on the board of the cost of raw materials.
- 1.3 Have each student punch a time card or list exact time he begins and finishes working. Figure total cost of labor if paid X amount perhour.
- 1.4 Compute the cost of product and the profit or loss.
- 2.1 Have students clip ads from daily newspaper which state current salaries.
- 2.2 Discuss items included in family budget.
- 2.3 Use figures from building and loan banks as current source of amount spent for each item in budget.
- 2.4 Review use of percentage problems needed and compute actual budget figures.
- 2.5 Compare these figures in standard census figures and to a welfare budget.

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## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide materials for simulation profit.

2.1 Furnish recent newspapers, budget handouts and other related materials.



#### **CLUSTER XIII: Arts and Humanities**

#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

DEVELOPMENTAL GOAL NO. 1: To become familiar with employment patterns in the arts and humanities in his community.

#### PERFORMANCE OBJECTIVE

## The student should be able: 1. To identify three sources of employment in arts and humanities.

2. To relate the personal quali-

ties necessary for employ-

ability in at least three

careers in arts and hu-

3. To determine the extent of

needed in three different

careers in arts and

humanities.

adaptability and adjustments

manities.

#### **ACTIVITIES**

- 1.1 Invite personnel interviewer from Ohio State Employment Office or private employment agencies to visit class.
- 1.2 Clip ads from local newspapers and trade journals from art supply, performing arts, writers' guild, and other specialized groups.
- 1.3 Have the class create a bulletin board on available sources.
- 2.1 Divide class into groups and have them research job requirements for careers of their interest.
- 3.1 Have class units on job descriptions and qualities.

- 1.1 Consult local resource file for speakers.
- 1.2 Obtain trade journals and related references.

- 2.1 Provide research materials—films, career literature—for student use.
- 3.1 Have speaker visit class to discuss versatility needed in various jobs.



#### **CLUSTER XIII: Arts and Humanities**

#### **DEVELOPMENTAL AREA F: Decision Making**

DEVELOPMENTAL GOAL NO. 1: To develop skills that will enable the student to make wise decisions in arts and humanities careers.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To identify at least five items to consider when making a career choice.

#### **ACTIVITIES**

- 1.1 Pass out outline below and discuss with class.

  Range of Career Choices Importance of Proper Choice
  The Individual's Choice Time Involved in Making Career Decision Interests and Abilities How to Measure Job Ability How to Measure Job Interest Sources of Help
- 1.2 Have each student create a folder entitled My Career Planner.
- 1.3 Ask high school counselor to explain the importance of decision-making skills.
- 2. To use instruments of evaluation such as inventories and tests on test profiles to make valid decisions regarding three possible career choices in the arts and humanities.
  - 2.1 Provide talent inventory tests on writing, art, and design, or provide a mannequin for interested students to design fashions or hair styles.
  - 2.2 Ask the guidance counselor to explain the purpose of such talent tests and their interpretation.
  - 2.3 Have students interview persons in related fields to determine their talents and interests.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide handout list for students.

- 2.1 Provide talent inventories and other materials.
- 2.2 Ask guidance counselor to talk to students.



## PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

#### PROCEDURES AND/CR RESOURCE MATERIALS

3. To rank ten arts and humanities careers in terms of amount of decision-making ability required by an em-

ployee.

- 2.4 Have each student select one career and determine whether or not he has the needed skills and interests.
- 3.1 Students select ten careers of interest and then gather information regarding decision-making requirements of each.
- 3.1 Arrange for career literature.
- 3.2 Arrange for student interviews with employees.



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#### **CLUSTER XIII: Arts and Humanities**

#### **DEVELOPMENTAL AREA G: Self**

DEVELOPMENTAL GOAL NO. 1: To help students become knowledgeable about the relation of their interests and abilities to arts and humanities careers.

## PERFORMANCE OBJECTIVES

The student should be able:

- 1. To identify at least three of his personal strengths and weaknesses as related to careers in the Arts and Humanities.
- 2. To list two goals in life that are most important to him, and evaluate these in terms of a career in arts and humanities.
- 3. To identify at least three careers in the arts and humanities that may meet his personal interests, aptitudes and abilities.

#### **ACTIVITIES**

- 1.1 Discuss how to identify strengths and weaknesses.
- 1.2 List strong and weak points and discuss how to improve.
- 2.1 Discuss topics which might be important, such as money, social position, education, and helping others.
- 2.2 Have each student list two things most important to him.
- 3.1 Have a class session on career selection.
- 3.2 Have each student summarize his personal qualities in writing.
- 3.3 Have resource person discuss the nature of various jobs.

## PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Contact guidance counselor about giving the OVIS and GATB.
- 2.1 Set up employee contacts for interview by students.

3:1 Utilize available career literature from library or guidance office.



**JOB CLUSTER XIV** 

**MANUFACTURING** 



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#### JOB CLUSTER XIV

#### **MANUFACTURING**

#### A. Rationale

A study of manufacturing deals with the methods and processes which man uses to make a product for his satisfaction and comfort. Manufacturing organizations may be large plants with many employees such as automative assembly plants or large plants with few employees such as an oil refinery. There are also many small manufacturing shops employing ten or fewer people. Food processing plants are considered to be manufacturing but farms are not; likewise, metal refining operations are included but mining operations are excluded. In general a product, not a service, is produced in manufacturing. Manufacturing is the largest occupational cluster and employs approximately 20 million persons.

#### B. Manufacturing in the Curriculum

Manufacturing is directly related to the industrial arts curriculum; however, every subject area provides skills essential to jobs in manufacturing jobs. Social studies provide insight into interpersonal relationships between employees and provide knowledge about the needs and resources of societies. Economic interdependence and the social impact of modern mass production capabilities also connect social studies to manufacturing. Communication skills (English and foreign languages) are vital both within the organization and in relation to advertising. Similarly a manufacturing operation's efficiency is directly related to the available skill in applying mathematics and science to the task at hand. For some products, efficient manufacturing is of little avail if the product is not as attractive as that of a competor; therefore art is significantly related to manufacturing. Health and environmental considerations are becoming increasingly significant to the producer, the employee, the consumer and the community in which the manufacturing plant is located.

Extensive curriculum material for the topic of manufacturing has been developed by the U.S.O.E. "Industrial Arts Curriculum Project" conducted by the Ohio State University in conjunction with the University of Illinois. This commercially produced material could be used as the basis for an industrial arts program in which manufacturing is studied for the entire school year. Such a program could easily surpass the objectives of the curriculum outlined in this guide. This guide is designed to aid schools that have not incorporated extensive career orientation curriculum related to manufacturing into their industrial arts program. With adequate interest, imagination and flexibility on the part of teachers and administrators most, if not all, of the content and activities described in this guide could be incorporated into the industrial arts, mathematics, science, English, social studies, and art curriculum.

#### C. Typical occupations in Manufacturing include:

Process Inspector
Assembler
Inventory Clerk
Scrap Baller
Stock Clerk
Material Handler
Machine Assembler
Material Clerk
Freight-Rate Clerk

Test Technician
Laboratory Tester
Standard-Practice Man
Material Coordinator
Package Designer
Design Checker
Waste Treatment Operator
Advertising Analyst

Operation Research Analyst Production Superintendent Public Relations Man Employment Manager Product-Design Engineer Market Research Analyst Applied Statistician Engineering Assistant Materials Engineer

This list can be expanded by using the Dictionary of Occupational Titles or Vocational Education Occupations which may be purchased from the Superintendent of Documents, U.S. Government Printing Office.



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#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students realize the relationship of manufacturing careers to the individual and his environment.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To list ways which at least three different manufacturing jobs affect other workers and the community.

#### **ACTIVITIES**

- 1.1 Prepare a vocabulary list and have students write manufacturing-related definitions of:
   pollution child labor monopoly deceptive advertising zoning regulations building codes scab planned obsolescence price fixing fair employment practice lockout
- 1.2 Ask a plant supervisor to discuss his work in the regulating of employee practices and behavior.
- 1.3 Have students visit regulatory agencies and manufacturing firms.
- 2. To list and give examples of at least six types of governmental regulations on manufacturing workers.
- 2.1 Add to the list prepared in
  1.1 the following terms:
   strike
   safety equipment
   apprenticeship
   union
   social security
   mandatory retirement age
   moonlighting
   closed shop
   medicare
   withholding tax

- PROCEDURES AND/OR RESOURCE MATERIALS
- 1.1 Provide library resource materials for reference.
- 1.2 Consult local file for speakers and field trips.

- 2.1 Provide library reference materials.
- 2.2 Consult local resource file for speakers.





## PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

- 2.2 Have a speaker from the social security office explain disability insurance and survivorship benefits to the class.
- 3. To identify the local manufacturing firms in the area and the number of jobs available each year.
- 3.1 Make a survey, as a class project, of local manufacturing industries.
- 3.2 Contact companies for employment figures.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To learn about the many occupations in manufacturing organizations located both within and outside of the local community.

#### **PERFORMANCE OBJECTIVES**

#### The student should be able:

1. To prepare a one-page description of occupations in manufacturing.

- 1.1 Ask resource speakers to discuss their job and related careers in manufacturing.
- 1.2 Show at least two films depicting the operations of
- 1.3 List the careers mentioned by the role models and in the films.
- 2. To list ten jobs in manufacturing.
- 2.1 Discuss the U.S.O.E. flow charts with students (see Appendix).
- 2.2 Show several films on manufacturing careers and list careers on board.
- 2.3 Explain how to catagorize careers into U.S.O.E. subgroupings.

3.1 Arrange for a field trip

- 3. To prepare a display of people at work in manufacturing in the community.
- 3.2 Arrange pictures in a classroom display.

where students can photog-

raph manufacturing workers.

4. To prepare a detailed job analysis of five jobs in manufacturing.

#### **ACTIVITIES**

- manufacturing concerns.
- 2.1 Provide copies of U.S.O.E. flow charts.
  - 2.2 Check with audiovisual department for films.

PROCEDURES AND/OR

RESOURCE MATERIALS

1.1 Consult local resource file

1.2 Check with audiovisual department for related films.

for speakers.

- 3.1 Consult local resource file for field trips. Provide cameras and film.
- 4.1 Make a list on the board of the type of information needed in the reports, in
  - cluding iob title duties
    - educational requirements 182



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To realize the education and training requirements of different occupations in manufacturing.

## PERFORMANCE OBJECTIVES

The student should be able:

- I To locate information about the educational and training requirements for at least five jobs in at least three of the U.S.O.E. subgroups.
- 2. To list education and training requirements for at least four manufacturing jobs described by a role model.
- 3. To identify three careers of interest and to report the name and location of training institute, length, and cost of training.
- 4. To select high school courses related to his tentative career choice.

#### **ACTIVITIES**

- 1.1 Assign students to groups according to interests.
- 1.2 Have each group identify education and training requirements for jobs in their area of interest.
- 1.3 Prepare a composite chart for the class.
- 2.1 Ask several role models to discuss education and training requirements.
- 2.2 Have students research requirements not mentioned by speakers.
- 3.1 Provide class time for students to research necessary information.
- 3.2 Create a permanent room file of the information obtained.
- 4.1 Ask representative from local high school or vocational school to discuss high school preparation for manufacturing careers.

- 1.1 Provide U.S.O.E. flow charts.
- 1.2 Provide career kits and other related reference materials.
- 2.1 Consult local resource file for speakers.
- 2.2 Provide related reference materials.
- 3.1 Consult local resource file for speakers.
- 3.2 Provide copies of high school course offerings.

#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To discover the significance of manufacturing careers to the economic well-being of individual workers.

## PERFORMANCE OBJECTIVES

The student should be able:

1. To describe three new careers in manufacturing for the time periods of the 1900's, 1940's, and 1970's.

2. To list three ways in which modern manufacturing techniques increase the amount of goods available to each individual.

3. To determine the beginning and average salaries for at least three careers in manufacturing.

#### **ACTIVITIES**

- 1.1 Have each student prepare a written report on this topic using library references.
- 1.2 Show films depicting the given time periods.
- 1.3 Have groups of students prepare displays illustrating the given time periods.
- 2.1 View films or discuss the industrial revolution and mass production assembly lines.
- 2.2 Discuss how division of labor increases production but makes each worker more dependent on the actions of other workers.
- 2.3 Plan a simulation experience in the classroom and have each student write a report on his experiences.
- 3.1 Students interview employer to learn salary information.

## PROCEDURES AND/OR RESOURCE MATERIALS

- 1.1 Provide reference materials for students.
- 1.2 Check with audiovisual department for related films.
- 1.3 Provide cameras and film.
- 2.1 Check with audiovisual department for films.
- 2.2 Provide handouts containing openended questions for class discussion.

3.1 Make initial contacts with employer.



#### **DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To discover that good personal and interpersonal behavior can contribute to job attainment and advancement.

#### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To locate five advertisements for manufacturing careers and list employability requirements.
- 2. To list five personality attributes often requested by employers.

 To recognize and define ten terms found in want ads for manufacturing careers that indicate adjustment skills needed for employability.

#### **ACTIVITIES**

- 1.1 Have students cut want-ads from local newspapers.
- 1.2 Create a bulletin board of the want ads.
- 2.1 Have students collect want ads that mention personality requirements.
- 2.2 Each student makes a list of these requirements in alphabetical order.
- 2.3 Make a composite list from the individual lists.
- 3.1 Have students cut want ads from newspapers.
- 3.2 Divide students into groups of four students and have them combine their lists.
- 3.3 Play a game in which each team scores a point for each term or abbreviation that can't be explained by the rest of the students.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Provide classified ad section from recent newspapers.

3.1 Provide classified ad section from recent newspapers.



#### DEVELOPMENTAL AREA F: Decision-Making

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To understand decision-making techniques and their application to career choice decisions.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list at least four factors that could influence the selection of a specific manufacturing career.

#### **ACTIVITIES**

- 1.1 Ask each student to make a tentative manufacturing job selection.
- 1.2 Without further discussion, ask each student to write a one-page report explaining his choice.
- 1.3 Create a list of factors influencing job selection on the board; list should include:
   wages or salary
   number of openings
   growth of occupation
   indoor vs. outdoor work
   working hours
   working with data,
   people or things
   routine work
   challenging job
   previous interest
   known aptitude
   amount of training
- 2. To identify three careers in manufacturing that require little decision-making ability and three that require much decision making ability.
- 2.1 In library or guidance office, students research information.
- 2.2 Students compare information presented by various sources such as U.S. Government, commercial publications, etc.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Prepare a check list of factors that might influence career choice.

- 2.1 Notify library and guidance office so materials will be available.
- 2.2 Collect publication and develop in room library.



#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students discover the importance of their own interests, aptitudes, and abilities in relation to tentative career decisions.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To analyze his interests, abilities, and attitudes and identify three careers in manufacturing which most nearly match his personal characteristics.

2. To identify out-of-school

pupil activities related to

manufacturing occupations.

#### **ACTIVITIES**

- 1.1 Administer OVIS or other interest inventory to students and interpret results.
- 1.2 Have each student select three jobs of interest and research special interests needed.
- 1.3 Have students take simplified aptitude tests for the jobs they have selected (if available).
- 2.1 Have a group of students construct a bulletin board of hobbies and part-time jobs that relate to a career in manufacturing.
- 2.2 Ask a representative from Junior Achievement to explain how their activities are related to manufacturing.
- 3. To list three or more school subjects that are related to a manufacturing career of interest.
- 3.1 Ask each student to list the school subjects that he likes and dislikes.
- 3.2 Have each student compare this list with the list of aptitudes required for the job selected.

- 1.1 Check with guidance department for OVIS and time needed to administer and interpret results.
- 1.2 Provide adequate reference materials.

- 2.1 Provide materials for display.
- 2.2 Consult local resource file for speakers.



JOB CLUSTER XV
CONSTRUCTION



#### **JOB CLUSTER XV**

#### CONSTRUCTION

#### A. Rationale

A study of construction deals with the ways in which man reshapes his natural and structural environment to suit his needs and comfort. Construction firms may be large with offices across the nation or may be small firms having less than half a dozen employees; they work on both private and governmental enterprises including building houses, office buildings, factories, schools, recreational facilities, and roads. The construction occupational cluster is similar in size to the agriculture cluster and employes approximately four million persons, half of whom are skilled craftsmen.

#### B. Construction in the Curriculum

Construction is directly related to industrial arts, however, every subject area develops skills essential to construction. Social studies provides insight into interpersonal relationships between employees and provides knowledge about the needs and resources of societies. Economic interdependence and the social impact of modern construction capabilities also connect social studies to construction. Communication skills (language arts and foreign languages) are vital both within construction firms and in relation to operations in foreign countries. Every construction project is involved with aesthetic considerations, hence the art curriculum is directly related to construction. A construction firm's capabilities and efficiency are directly related to the mathematical and scientific tasks. Health and environmental considerations are becoming increasingly significant to the employer, the employee, the purchaser, and the community in which the construction project is located.

Extensive curriculum material for the topic of construction has been developed by the U.S.O.E. "Industrial Arts Curriculum Project," conducted by the Ohio State University in cooperation with the University of Illinois. This commercially available material could be used as basis for an industrial arts program in which construction is studied for the entire school year. Such a program could easily surpass the objectives of the curriculum outlined in this guide. With adequate interest, imagination and flexibility on the part of teachers and administrators most, if not all, of the content and activities described in this curriculum guide could be incorporated into the industrial arts, mathematics, science, language arts, social studies, art or other subject matter areas.

#### The U.S.O.E. has identified major activities in construction as:

- 1. Operations—Includes top management involved with making and administering policy, mid-management, supervision of construction workers, and personal services.
- 2. Design—Includes architectural and civil engineering specialities.
- 3. Contracting—Includes manpower used in the application and procurement of material; also included is equipment operation, scheduling, expediting, and security operations.
- 4. Interior—Includes interior structural design and illustration, design, selection and installation of both decorations and furnishings.
- 5. Landscaping—Includes nursery operations and provisions for ground maintenance.
- 6. Land Development-Includes site preparation and utilities.
- 7. Fabrication and Installation—Includes field operations building systems and fabrication. These involve foundation structural work, finishing operations, prefabrication and field assembly.

In general, semi-skilled and professional jobs are available in each of the seven subgroups listed above, although operation and design have relatively few semi-skilled jobs.



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### C. Typical occupations in Construction are:

Electrician Surveyor

Plumber Interior Decorator

Carpenter Draftsman, Landscape

Stonemason Structural Designer

Ditchdigger Contract and Order Administrator

Rodman Valuation Engineer

Glazier Civil Engineer

Grounds Keeper Mason Superintendent

Inspector Drainage Design Coordinator

Estimator Chief of Party

Production Planner Public Relations Man

Architect Contractor

Masonry Inspector Purchasing Agent

Operating Engineer

#### **DEVELOPMENTAL AREA A: Individual and Environment**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students realize the relationship of construction jobs to the individual and his environment.

## PERFORMANCE OBJECTIVES

#### The student should be able:

1. To list ways which at least three different construction jobs affect other workers and the community.

#### **ACTIVITIES**

- 1.1 Have students write construction related definitions of the following vocabulary list
  - pollution; child labor; monopoly; zoning regulations; building codes; environmental protection agency; scab; planned obsolescence; price fixing fair employment practice, lockout.
- 1.2 Have a safety supervisor or labor relations manager discuss the regulation employee practices.
- 1.3 Arrange for students to visit regulatory agencies and construction sites.
- 2. To list and give examples of at least six types of governmental regulations on construction jobs.
- 2.1 List the following terms on the board and discuss them: strike: safety equipment; union; apprenticeship; social security; mandatory retirement age; moon-lighting; closed shop; hard hat; operator's license; professional engineer; registered surveyor; medicare; withholding tax.
- 3.2 Students interview social security representative concerning disability and survivor benefits provided.

## PROCEDURES AND/OR RESOURCE MATERIALS

1.1 Check local resource file for local, state or federal agencies.

2.1 Consult local resource file for social security speaker.



#### **DEVELOPMENTAL AREA B: World of Work**

OVERALL DEVELOPMENTAL OBJECTIVES NO. 1: To learn about the many occupations in construction firms located both within and outside of the community.

## PERFORMANCE OBJECTIVE

#### The student should be able:

- 1. To prepare a one-page summary of three construction occupations.
- 2. To list and correctly categorize ten jobs in construction.
- 3. To prepare a detailed job analysis of five jobs which he selects from the U.S.O.E. subgroup.

#### ACTIVITY

- 1.1 Ask role models to describe their occupations in assembly programs or small discussion groups.
- 1.2 Students present oral and written summaries.
- 2.1 Use the U.S.O.E. subgroups and films showing construction occupations. Have students identify workers within the U.S.O.E. groupings.
- 3.1 Students will use career guidance kits, encyclopedias, and brochures describing jobs to locate information requested or a job analysis worksneet.
- tion to be included in the report, including—
  job name
  duties
  educational requirements
  special training
  approximate salary
  projected manpower needs

3.2 Discuss the type of informa-

- 1.1 Consult local resource file for speakers.
- 2.1 Check with audiovisual department for materials.
- 2.2 Prepare handouts of U.S.O.E. job cluster flow charts.
- 3.1 Provide commercially prepared career kits, encyclopedias, and reference books.
- 3.2 Obtain brochures and pamphlets from construction firms.
- 3.3 Provide teacher-prepared handouts requesting specific iob information.



#### **DEVELOPMENTAL AREA C: Education and Training**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: Help students to see the need to plan educational goals based on the requirements for different occupations in construction.

#### PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To indicate information about the educational and training requirements for five jobs in at least three of the U.S.O.E. subgroups (15 jobs in all)
- 2. To list education and training requirements for four jobs described by a role model.
- 3. To select one educational or training program and report the name and location of the training institute, length and cost of training, and how living expenses can be covered.
- 4. To develop a school program related to their occupational interests.

#### **ACTIVITIES**

- 1.1 Small groups identify education and training requirements for jobs in chosen construction subgroups.
- 2.1 Arrange for small group discussion or assembly program featuring role models from educational institutions and apprenticeship programs, to discuss their own training.
- 3.1 Each student selects a job that interests him and uses all possible resources and personal contacts to determine exact nature and cost of the education and training required.
- 4.1 Ask guidance counselor to explain high school course offerings.
- 4.2 Each student chooses high school courses which will prepare him for his selected job. (The students should fill out two copies, one for his personal use.)

- 1.1 Provide U.S.O.E. sketch of cluster sub-groups and commercially prepared career kits for reference.
- 2.1 Check local resource file for college, technical institute, apprentice program, and armed forces speaker.
- 3.1 Prepare a handout listing the specific information desired.
- 4.1 Provide a list of high school course offerings.



#### **DEVELOPMENTAL AREA D: Economics**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students realize the economic significance of modern construction occupations on the economic well-being of individual workers.

## PERFORMANCE OBJECTIVES

#### The student should be able:

- 1. To describe three new careers in construction which have developed between the 1940's and the 1970's which have major economic effect on society.
- 2. To compare the beginning and average salaries for at least three construction careers.

#### ACTIVITIES

- 1.1 Students prepare brief written reports on this topic using library references.
- 1.2 View films and film strips depicting these eras.
- 1.3 Have small groups of students prepare displays illustrating these time periods.
- 2.1 Students interview employers to determine salary schedules.
- 2.2 Make comparative chart to compare three different jobs.

- 1.1 Check with librarian for available resources.
- 1.2 Check with audiovisual department for films.
- 1.3 Provide cameras and film.
- 2.1 Make initial contact for students.



#### DEVELOPMENTAL AREA E: Employability and Work Adjustment Skills

OVERALI. DEVELOPMENTAL OBJECTIVE NO. 1: To help students understand the value of personal and inter-personal behavior that will contribute to job attainment and advancement.

## PERFORMANCE OBJECTIVES

#### **ACTIVITIES**

## PROCEDURES AND/OR RESOURCE MATERIALS

The student should be able:

- 1. To find five want-ads for jobs available in construction, and list employment requirements.
- 1.1 Have students cut out newspaper help-wanted clippings related to construction and arrange them into the U.S.O.E. subgroups.

1.2 Students should prepare a bulletin board using these

want-ads.

1.1 Obtain the classified ad portion of papers for several previous months.

- 2. To list five personality attributes often requested by employers.
- 2.1 Students compile folders of all help wanted ads which list personality requirements marking these requirements.
- 2.! Provide want ads from local newspaper.
- 2.2 From this folder the student may compile a list of personality terms in alphabetical order; a composite list may be compiled by the class.
- 3. To recognize and define ten words found in help-wanted ads related to the construction industry that indicate adjustment skills needed for employability.
- 3.1 In groups of four, students participate in a contest. They score points by selecting ads which cannot be correctly understood by the class but are understood by their group.
- 3.2 Students are assigned vocabulary lists based on selected want adv.
- 3.3 Put ads on overhead transparencies. Each group selects one ad from six choices provided.

3.1 Supply a dittoed handout of common terms at close of lesson.



## PERFORMANCE OBJECTIVES

## 4. To list five good and five poor personal behaviors and the effect these have on job performance.

#### **ACTIVITIES**

4.1 Given a series of brief stories, students in groups of four may indicate their first, second, and third choices and present a role-playing skit to the rest of the class.

## PROCEDURES AND/OR RESOURCE MATERIALS

4.1 Provide adequate reference materials.



#### **DEVELOPMENTAL AREA F: Decision-Making**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: Help students develop skills in decision-making and discover their application to career-choice decisions.

## PERFORMANCE OBJECTIVES

## The student should be able: 1. To list at least four factors

which might influence his selection of a specific construction job.

# 2. To analyze his personal qualities, such as interest, skills, abilities, and attitudes, and to identify three construction careers which most nearly match his personal characteristics.

#### **ACTIVITIES**

- 1.1 Each student makes three tentative construction-related job selections. With no further discussion, he writes a short report defending his choice of one of these careers.
- 1.2 List factors which might influence career selections, including pay, number of job openings, growth of occupation, indoor vs. outdoor work, and working hours.
- 2.1 Administer OVIS, GATB or other interest and aptitude tests and interpret results to students.
- 2.2 After the personal qualities are determined, have students research careers which match these qualities.

## PROCEDURES AND/OR RESOURCE MATERIALS

3.1 Contact guidance office for administration of tests.



#### **DEVELOPMENTAL AREA G: Self**

OVERALL DEVELOPMENTAL OBJECTIVE NO. 1: To help students develop a sense of value for their own interests, aptitudes, and abilities in relation to tentative career decisions.

#### PERFORMANCE OBJECTIVE

#### The student should be able:

1. To analyze his interests and abilities and identify three careers in construction which most nearly match these personal qualities.

## 2. To identify out-of-school pupil activities related to construction occupations.

3. To list three or more school subjects related to a construction occupation of particular interest to the student.

#### **ACTIVITIES**

- 1.1 Administer interest tests and provide simplified interpretations.
- 1.2 Students select three construction jobs of special interest and list special aptitudes needed.
- 1.3 Given a selection of simplified aptitude tests, the student may test his aptitudes for the selected jobs.
- 2.1 Students will construct a bulletin board about after school activities listing names of part-time jobs and hobbies related to construction.
- 3.1 The student is asked to list his interests, likes and dislikes for school subjects. This list is compared to the aptitudes required for jobs selected in 1.2.

- 1.1 Check for guidance for OVIS.
- 1.2 Arrange for career reference materials.



**APPENDIX** 



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#### **U.S.O.E. JOB CLUSTER FLOW-CHARTS**

One of the tasks that readily became apparent, with the advent of Career Education throughout the nation, was a way of organizing the thousands of jobs into an organizational pattern that could be easily understood and administered. The Department of Vocational-Technical Education (DVTE) in the United States Office of Education (USOE) undertook the task, and developed "clusters" on an industry basis. These clusters are included in the following pages (see index page v for exact location of each cluster).

#### Suggestions for Use

The cluster lists are sometimes called "flow-charts." This is because they show the breakdown of the total cluster into component parts—specific industries, divisions, and/or operations. This total "flow" effect can be helpful to students in understanding the overall magnitude of each job cluster. It can also be helpful in understanding the various "subgroups" of jobs as well as the nature of jobs within the cluster.

After sufficient analysis of the flow-charts as presented, students may wish to identify several sample occupations in each of the subcatagories.



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Cluster for Agri-Business and Natural Resources	Skill Development and Related Knowledge	10-11-12		Management Personnel and Labor Relations Communications	Wid-Management Data Handling Task Analysis Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development Caner Orientation	
<b>A</b>	Pre-Yocational and Exploratory	7-8-9			Operations			
	Elementary Education	1-2-3-4-5-6	Signts & Sound What Are The Occupations?	Who Worke In These Occupations?	What Is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for Cluster or AGRI-BUSINESS AND NATURAL RESOURCES	Pre-Vocational and Skill Development and Exploratory Related Knowledge	7-8-9	Geerdianships Eskimos Trust Territories	Seprent and Selety and Federal State Regulations State State	Conservation Fish and Petroleum Fish and Wildlife Water	Experimentation Wildlife and Fish Wildlife and Petroleum Water Soil	Research Water Quality Control Transportation Description	Dissemination Reports and Visual Aids   Gents Media	
	Elementary Education	1.2-3-4-5-6	Sights & Sound What Are The ' Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?	



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Cluster for AGRI-BUSINESS AND NATURAL RESOURCES	Pre-Vocational and Skill Development and Exploratory Related Knowledge	7-8-9	Production Kanagement Kanagement Business and Finance Contract	Forestry  Fire Control  Planting and Thinning  Disease and Pest Control	Processing and Serv Mill Operation  Marketing Perspectation  Transportation	Parks State Mational Private	Vater Water Water Wanagement Commerce Recreation Commercial Fisheries	Hydro-: Metric State Power Private
	Elementary Pro	1.2.3.4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for Davisoped AGRI-BUSINESS AND NATURAL RESOURCES Revise Date	Shili Development and Related Knowledge	10-11-12		Management Propertion	ection	Commercial Fisheries Utilization	Buidden oue Swither	
	Pre-Vocational and Exploratory	7-8-9			Fisheries and Wildlife			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do Pespie Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for AGRI-BUSINESS AND NATURAL RESOURCES	Skill Development and Related Knowledge	10-11-12		Exploration Seismographic Seismographic	Production Extraction Transportation Mining-benefication	Frocessing and Refining Waste Disposal Storage Sy-products	Distribution   Harbeting	
	Pre-Vocational and Exploratory	7-8-9			pae Baiuin	Quantifia;		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do Thay Accomplish Their Jobs?



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Cluster for BUSINESS AND NATURAL RESOURCES  Revise Dark	Still Development and keisted Knowledge	10-11-12		Exploration Geophysical Seismographic Photo-grammetric	Production Pemping Pemping Pemping Deep Well Mining-Selt. Sulphur Extraction	Services Services Supplies	Distribution Iransportation	
	Pre-Vocational and Exploratory	7.4-9			Petroleum and Related Products			
	Eiementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	These Jobs?	How Oo They Accomplish Their Jobs?



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Cluster for AGRI-BUSINESS AND NATURAL RESOURCES	Pre-Vocational and Saili Development and Exploratory	7-8-9	Support and Regulations Regulations Government Support Finance	Experimentation  Experimentation  Food and Fiber Production  Food and Fiber Production	Research  Beterials  Beteral Extension Service  News 20063	Crops Cultivating Harvesting	Production Fish Fashing Feeding	Horticultural Propugating Products Norwating Landscaping
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Johs?



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Cluster for BUSINESS AND NATURAL RESOURCES	Skill Devalopment and Related Knowledge	16-11-12	Supply Seed Supply Feed Chemicals Veterinary Finance Finance Confracting Bainess Espection Espection Grading	Focassing Food Fibri Food Fibri Cooperatives Farm Organizations Farm Organizations Farm Organizations Formission Bayers Fotalging Storage Storage
	Pre-Vocational and Explorationy	7.8.9	Section 2	Processing and Marketing
·	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations? Who Works In There Occupations? Occupations? What is Life Style Of People?	Who Do People Work With? Where Are These Jobs? How Do They Accomplish Their Jobs?



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Cluster for Dewlo	Ski'l Development and Related Knowledge	10-11-12		Wanagement Data Interpretation Personnel and Labor Relations Communications	Mid-Managarzen! Data Handfing Task Analysis Communication Skills	Supervision Processing fechniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Development Cares Orientation		
	Pre-Vocational and Exploratory	7.8.9			Operations				
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where due These Jobs?	How Do They Accomplish Their Jobs?	



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Cluster for	ENVIRONMENT	Skill Development and Related Knowledge	10-11-12	Hydroponic Plant Cutture Development Soil Transplant Science Development for Non-Arable Aras Utfazation Soil or Surface Stabilization and Erosion Resistance Systems Development	Research and Experimentation Filled Soil Redecation of Total Water Required for Plant Prodection Plant Prodection Development of Mineral Recovery Processes	Mineral Recycling Processes Development Plenting Cathrating	Soil Renagement Practices Practices Fool Stabilization and Erosion Prevention Forthikizer, Wood Killer and Other Chemical Utilization	Extraction  Extraction  Extraction  Lind Reclamation  Wastewater Recycling  Airborne Pollatant Control
		Pre-Vocational and Exploratory	7-8-9			Soil and Mineral Conservation and	Topicos Topicos	
		Elemniary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Was Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	These Jobs? How Do They Accomplish Their Jobs?



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Education
(4-Year College
Or More) Apprenticeship Job Placement Options After Grade 12 Developed By: USOE/DVTE Draft Revised DATE 4/1/71 Mine and Dump Restoration Regulation Monitoring and Enforcement of Mineral Pollution Regulation Enforcement Monitoring and Recording Production Quatas Sample Collection Water Analysis Skill Development and Related Knowlecze Control 10-11-12 ENVIRONMENT Cluster for Analysis and Utilization Control Processing Collection Data and Conservation and Control Soil and Mineral Pre-Vocational and Exploratory 7-8-9 Who Do People Work With? Sights & Sound What Are The Occupations? Elementery 1-2-3-4-5-6 How Do They Accomplish Their Jobs? Who Works In These Occupations? Education What is Life Style Of People? Where Are These Jobs?

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ENVIRONMENT	Skill Development and Related Knowledge	10-11-12			Research and Experimentation Reduction of Internal Combustion Engine Poliution Effects of Sunlight on Air Pollution	Air Pollution Abatement and Control Control Control Anti-Pollution Industrial Pollution Identification and Control Anti-Pollution Education	Meteorological   Smog Condition Prediction   Processes   Analysis of Weather Factors Related to Urben or Industrial Planning	Utilization Control Control Polletion from Transportation Systems
	Pre-Vocational and Exploratory	7.8.9				Space and Atmos- pheric Menitoring and Control		
	Elementary Education	1-2-3-4-5-6	Sights & Sound	With Aie ine Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do Penple Work With? Where Ars These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for ENVIRONMENT	Skill Development and Related Knowledge	10-11-12		Assessment Ronfloring Potential Hazards Recording and Reporting	Mazintenance Maintenance Waste Disposal Post and Varmint Control Water Sanitation	Services Education Enforcement  Education  Mass Health Services	Administration (notifultional Operations Home Implementation Industrial Safety Engineering	
	Pre-Vocational and Exploratory	7-8-9			Environmental	Health Services		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occurations?	What is Life Style Of People?	Who Do People Work With?	Where Ave These Jobs?	How Do They Accomplish Their Jobs?



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Draft Revised  DATE 4/1/71	Options After Grada 17			Job Placement	Apprenticeship and Adult Education	Post-Secondary Geoupational Skill Training	Advanced Education (4-Year College Or More)	
CIUSTET TOF ENVIRONMENT	Skill Development and Related Knowledge	10-11-12		Inter-Area (County) Planning for Urban  Development  Demographic and Population Trend Survey	Urban Planning  Ustifity Services Planning  Utility Services Planning  Police and Law Enforcement Systems Design  Edwestion, Health and Social Service  Planning  Long-Range Space Utilization Planning	Urban Development  Urban Development  Architectural and Building Codes Enactment  and Renowal  Population Growth Trend Monitoring	Reral Development Reval Services Planning And Development Reval Facilities Design and Construction Reval Utilities Planning and Development	Omamental  Horticatuse  Horticatuse  Design and Calture of Land Corers and  Stabilizars  Design and Calture for Beautification  Design and Calture to Behavioral Control  Design and Calture to Maintain Open Space
	Pre-Vocational and Exploratory	7.8.9				Development and Control of Physical Man-Made Environment		
	Elementary Education	1-2-3-4-5-6		Sights & Sound What Are The Occupations?	Who Works In Thesa Occupations?	What is Life Style Of People?	Work With? Work With? Where Are	How Do They Accomplish Their Jobs?



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Devaloped By: USOE/DVTE Draft Revised OATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College		
Cluster for ENVIRONMENT	Skill Development and Related Knowledge	10-11-12		Civil Technology Reservoirs and Hydroelectric Plants Reservoirs and Hydroelectric Plants	Processes  Design and Construction of Sanitation Systems  Design and Construction of Towers, Buildings  and Framework  Noise Abstement	Solid Waste Solid Waste	Abatement and Abatement and Development and Implementation of Systems Control for Garbage Disposal	
	Pre-Vocational and Exploratory	7.8-9			Development and Control of Physical Men-	(Continued)		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?

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Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Still Training	Advanced Edwcation (4-Year College Or More)	
ENVIRONMENT	Skill Development and Related Knowledge	10-11-12	Development of Species Resistant to Disease	Research and Experimentation  Systems Davelopment Systems Davelopment Systems Davelopment Systems Davelopment Systems Davelopment Systems Davelopment Systems (Ecological Effects Of)  Chemical Effects on Species and Ecological Systems	Resource Survey  Resource Survey  Reciprocal Impelance Detection  Species Harvestion  Reciprocal Impelance Detection  Species Harvesting Data Collection and		Deratopment Public Aesteness Deratopment Sport and Recreational Facilities Deratopment
	Fre-Vocational and Exploratory	7.8-5			Forest, Range. Shore, and Wildlife Conser- vation and		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Work With? Work With? Where Ase These Jobs?	How Do They Accomplish Their Jobs?



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Geveloped By: USGE/DYTE Draft Revised DATE e/1/71	Options After Grade 12		Job Piscement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for Drawlor Environment Ba	Skill Development and Related Knowledge	10-11-12		Construction of Access Roads Public Lands Creation, Protection and	Resource Resource Protection Protection Environment for Vanishing Species for Maintenance of Ecological Balance Restrementation and Construction of Optiman Environment for Vanishing Species for Maintenance of Ecological Balance Restrementation and Airborne Fire and Daction	Utilization Control Utilization and Harwatt Regulation Enforcement	
	Pre-Vocational and Exploratory	7-8-9			Forest, Range, Shore, and Wildlife Conser- vation and Control		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?



Ceveloped By: USDE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement Apprenticeship and	Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)		
Cluster for ENVIRONMENT	Skill Development and Related Knowledge	10-11-12	Research and Meteorological and Watershed Survey and Moteorological and Watershed Survey and Mostoring Water Table—Land Cover Relationships Survey and Aualysis Experimentation Water Disalinization Underground Waterflow Systems Discovery	Water Purification Systems Development Treatment Plant Construction and Operation	Water Pollution  Abetement and Chemical Analysis and Monitoring Chemical and Thermal Pollution Prevention Control  Bacteriological Analysis and Monitoring	Industrial Polletion Detection and Monitoring Anti-Polletion Education	Distribution and Collection Systems  Development Water and Westermter Treatment Systems Development	Processes  Brainage Systems and Development Irrigation, Reservoir, Canals and Waterways Development
•	Pre-Vocational and Exploratory	7-8-9	,		Water Resource Development, Conservation and Control	· ·		•
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations? Who Works in These	Occupations? What Is Life	Style Of People?	Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USDE/DVTE Oraft	Revised DATE 4/1/71	Options After Grade 12		
Cluster for	ENVIRONMENT	Skill Development and Related Knowledga	10-11-12	••
		Pre-Vocational and Exploratory	7.8.9	
		Elementary Education	1.2.3.4.5.6	

Job Placement	and Adult Education	Post-Secondary Occupational	Advanced Education (4-Year College Or More)	
	Game and Fish Propagation, Harvesting and Control	Recrection Camps, Parks, and Bocking Facility	Utilization Pollution Control Regulations and Enforcement Legislative Prohibition of Use of Non-Biodernadable Chemicals	
Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is life Style Of	 Work With?	Where Are These Jobs?



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Cluster for HEALTH OCCUPATIONS	Skill Derelopment and Related Knöwledge	10-11-12		Management Data Interpretation  Personnel and Labor Relations  Communications	Mid-Management Data Handfing Task Azaklysis Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Development		
	Pra-Vocational and Exploratory	7.2.9			Provide				
	Elementary Education	1-2-3-4-5-6	Signts & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	West Wild?	Where Are These Johs?	How Do They Accomplish Their Jobs?	



Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Yes College		
Cluster for HEALTH OCCUPATIONS	Skill Derelopment and Related Knowiedge	10-11-12	Wedical Records  Coding and Retrieving  Transcribing  Coding and Indexing	Report Preparation and Transmission Preparing Original Birth Death Certificates	Medical Library Science Science Research Transmission	Medical Hustration Film Preparation and Projection And Photography Graphic Arts	Official Recording of Births Deaths.  Warriages, Director and Other Information as Required	Retisering and Dispensing Information Proparing Reports and Statistical Date Providing Copies of Official Recerds
	Pre-Vocational and Exploratory	7-8-9			Health Informa-	tion Systems		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DYTE  Orath  Revised  UATE 4/1/71	Options After Grade 12		Job Placement	Apprentionship and Adult Education	Post-Secondary Occupational Skill Traming	Advanced Education (4-Year College Or More)	
Cluster for Drivioned HEALTH OCCUPATIONS Revise UATE UATE	Skill Development and Related Knowledge	10-11-12	Health Maintenance Communizing Communizing Communicable Disease Control Health Education	Community Health Wistling Nurse Service Visiting Nurse Service Services Water, Food, and Waste Control Case Finding	Hospital and Long Diagnostic Processes  Term Care Services  Administrative Support Services  Restorative Processes	Remborn Clinic Service Health Screening for Prz-School and Services Services Medical Office Care Nome Care	Geriatric Care and Institutional Care Services Health Clinic Services Wedical Office Care
	Pre-Vocational and Exploratory	7-8-9			Health Services Delivery		
	Ekmentary Education	1.2.3.4.5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Plasement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	Or More)	
Cluster for Oration OccuPATIONS Revised Revised Oaks OATE 4.	Skill Development and Related Knowledge	10-11-12	Care of Mentally Social Services Training the Mentally Retarded Home and Community Services	Mantal Health Diagnostic Processes and Referral Maintenance Home and Community Services Social Services	Psychiatric Nemes and Community Services Home and Community Services Diagnosis Services Therapy Social Services	First Aid and Winistering Rescue Services Reporting	Medical Emer- Disaster Team Service Institutional Emergency Service	Accidents and Oisse-wination Preparation and Oisse-wination Poisoning, Control and Prevention Safety Education and Engineering Records and Reporting
	Pre-Vocational and Exploratory	7.4.9		Mental Health, Mental Illness and Retardation			Accidents, Injuries, and	
	Elementary Education	1.2.3.4.5.6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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CIUSTER TOF HEALTH OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Dental Health  Maintenance Preparing and Maintaining Records	Diagnostic Procedures  Treatment and Corrective Measures Maintaining Patient Records	Dental Restoration Preparing and Maintaining Prosth- odontic Devices	Regulation and Distribution Procedures Control of Records on Reportable Items Information Dissemination	Production of Drugs.  Biologicals, and Chemicals Research	Retailing and Dispensing  Distribution  Delivering  Records and Reporting
	Pre-Vocational and Exploratory	7.8.9		Dental Science and Services			Pharmaceutical Science and Services	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?

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Cluster for Developed By HEALTH OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Sciences Basic to Chemistry  Bedical Services  Cytology  Physics  Chemistry	Mathematics Anatomy and Physiology Psychology Sociology	Surgical Care Surgical Procedures Surgical Patient Care and Services Records and Reporting	Medical Care Medical Care Medical Patient Care and Services Records and Reporting	
	Pre-Vocational and Exploratory	7.8-9			Medical Science	and Services		
	Elementary Edur. 1.00	1-2-3-4-5 8	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do Peaple Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Orvelaped By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship end Adult Education	Post-Secondary Georgational Skill Training	Advanced	(4-Year College Or More)	
Cluster for HEALTH OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Bio-Liedical Electronics (Instrumentation Technology	Biology Hissue Processing Micro-and Macro-Organism Identification Blood Analysis Radio-Isotope Processes	Dio-Chemistry Quantitative Analysis Quantitative Analysis	Bio-Physics (Body Fluids & Parts)  Nuclear Monitoring Instrumentation	
	Pre-Vocational and Exploratory	7-8-9			Biologic Science and Technology			
	Elementary Education	1.2.3.4.5.6	Sights & Sound What Are ine Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for HEALTH OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Public Health Administration Research	Institutional Health-Care Health-Care Administration Sick-Care Preventive-Maintenance	Private Health Facilities Services Services Services	Health Maintenance Cooperative Health and Medical Systems Services Data Collection and Dissemination	
	Pre-Vocational and Expioratory	7.8.9			Health Services	Administration		
	Elementary 'ucation'	2.3.4.5.6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for Developed By Draft Draft HEALTH OCCUPATIONS Revised BATE ALTH OCCUPATIONS BATE 4.	Skill Development and Related Knowledge	10-11-12		Management Data Interpretation Personnel and Labor Relations Communications	Mid-Management Data Handling Task Analysis Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Development Career Orientation	
	Pre-Vocational and Exploratory	7.8.9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Gecupations?	What is Life Style Of Propie?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement		Apprenticeship	pue	Adult Education			Post-Secondary	Gecupational Skill Training			Advanced	Concession (L'Year College	Or More)						
Cluster for MARINE SCIENCE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Boat or Vessel Operation	Water Sampling for Micro-organism Survey	Barine Micro-	Hardh	Storage Storage	Plankton Sorting, Identification and Pachaging	Micro-organism Life Cycle and Food Systems	Boat or Vessel Operation	Collecting Gear Operation and Repair	Mavigation, Communication, Meterological Fish Finding Systems		(2000 being)		Specimen Distanction, and Micro or Macro Examination	Survey of Life Cycle and Renge of Species	Food Sources and Cycles for Species	Diseases, Parasites and Enemies or Species		
	Pre-Vocational and Exploratory	7-8-9										MATINE BIOLOGY										
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The	Occupations?		Who Works	In These Occupations?			What is Life	Style Of People?		Who Do People	Work With?			Where Are These Jobs?			How Do They Accomplish	Their Jobs?	



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Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement		Bonzanticachio	pue	Adult Education		Post-Secondary	Occupationa!	Skill Training	•	•	Advanced	(4-Year College					
Cluster for MARINE SCIENCE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Boat or Vessel Operation	Collecting Gear Operation and Repair Mavigation Communication Meterological	and Plant Finding Systems	Specimen Collection		Research Specimen Dissection, and Micro or Macro	Survey of Life Cycle and Range of Species	Mutrient Sources and Cycles for Species	Diseases, Parasites and Enemies of Species	Sedimentation, Turbidity and Sunlight Effects on Marine Plant Life		Acquisition of Faciaties, Vessels and Equipment	Marine Biology Operation and Maintenance of Equipment	V	Contract and or 200 of 12 of 1	Specimen Storage and Shipping Services	
	Pre-Vocational and Exploratory	7.8.9									Marine	Biology		/			٠			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The	Occupations?		Who Works	In Inese Occupations?		What Is Life	Style Of	People?		Who Do People	Work With?		Where Are	These Jobs?		How Do They Accumplish	



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Cluster for		Skill Development and Related Knowledge	10-11-12	Marine Plant and Animal Relationship Studies	Water Chamistry Effects on Marine Life Temperature Effects on Marine Life	Marine French Effects of Light on Marine Life Franker of Commercial Eschine on Marine		Control of Marine Life Systems to Conserve	Species	Offshore Fishing Vessel Operation	Translar and Oragges Operation	Inshore Fishing Operations	Orean Fiebling		Chickened Broduct Coming and	Observe Control		Shipboard or On-shore Raw Fish Preparation	Product Cooking		Seafood Product Pressivation (Canning, Freezing,		Bi-Products Production (Oil, Meat, Animal	Food, Fertilizer, or Shells)	
		Pre-Vocational and Exploratory	7-8-9			Mariva Biology											Commercial Fishing								
		Elementary Education	1-2-3-4-5-6	Sights & Sound	What Are The Occupations?		Who Works	In These Decupations?			What Is Life	Style Of	reopie.		Who Bo Decole	Work With?			Where Are	These Jobs?		How Do They	Accomplish	Their Jobs?	



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Cluster for MARINE SCIENCE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Seafood Sectoriological Determination of Product Quality Analysis for Adulterants or Substitution of Species Determination of Toxic Chemical Content	Seaweed Harvesting  Seaweed Harvesting  Product Collecting, Sorting, and Cleaning and Processing  Pachaging and Preservation and Delivery	Charles Party Boat Operation Charles Party Boat Operation Description	Sport Fishing  Gear and Lure Preparation and Waintsnance  Enterprises  Marigation, Meterological Communications and Fish Finding Systems	Sanitation and Fish Cooling Systems
	Pre-Vocational and Exploratory	7.8.9			Commercial Fishing			
	Liementary	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for	MARINE SCIENCE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Isolate Potentially Commercial Species	Develop Physical System for its Culture	Develop Food Source and its Production			Culture	Authorities Companies Orthograms to Eliminate Companies		Ceretop Upitales Marest #61500	Develop Optimum System for Controlling	Prodection Cycle		Isolute Commercially Useful Species	Develop Physical System for its Culture	Provide Optimum Mater, Nutrient and Sunlight	Marine Plant Conditions	Grown: Dernico Saparico Strain	Control Disease, Parasite, and Enemy Organisms	Dereion System for Controlling Production Cycle	Harvest and Process for Market	Deliver to Market		Construct Helching, Growing and Harwarling	Facilities	Capture or Acquire Fertile Adults of Species	Fish Hatching. Collect, Fertifire and Hatch Eggs	Raising Ponds	Provide Food, if in Artifical System	Harvest and Frapare for Market	Deliver (five or processed) to Market
		Pre-Vocational and Exploratory	7-8-9															Agus	Catture														
		Elementary Education	1.2.3-4-5-6			Sights & Sound	What Are The	occupation of		Who Works	In These	Ornestone?	Sello Indiano			What Is Life	Style Of	People?			Who Do Peaple	Work With?			Where Are	These Jobs?			How Do They	Accomplish	Their Jobs?		



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MARINE SCIENCE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	(See Cluster for Transportation)		Charting Charting Charting Charting Charting Charting Charting Charting Monitoring and Charting Monitoring and Charting Ognamic Charge Oceanic Topographical Map and Chart Production	Ocean Mineral  Exploration  Underwater drilling, sampling and seismographic  Servering	Ocean Current and Fixed or Free Floating Broy Instrument Systems	Water Research  Ocean Cerrant Chart and Map Production  Methrological and Seasonal Effects of  Ocean Cerrants
	Pre-Vocational and Exploratory	7.8-9	Marine Transportation			Marins (Ocean- ographic) Exploration		
	Elementary Education	1-2-3-4-5-5	Sights & Sound	Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With? Where Are	These Jobs? How Do They Accomplish Their Jobs?



Orait Revised DATE 4/1/71	Options After Grade 12		Job Placement		Apprenticeship	Sun and an	Adult Education			Dart Carondara	Occupational	Still Training	-			Advanced	(4-Trar College	Or Mare)					
MARINE SCIENCE OCCUPATIONS	Skill Developrant and Related Knowledge	10-11-13	Orilling Tender Vessel Operation	Offsbore Facility Construction	 Production Offshore Oradge Construction and Operation	Construction of Offshore Piping Systems	Offshore Pemping, Storage and Loading Systems	P. C. L. C.	Saparanne Materials testing and ustrioperat	Cirad Hadanes Grantume Davier and			Mobile Sabmerrible Mechine Design and	Construction	Submersible Machine Operation	Dirian Tanka Bankina	Divine East Hea at Instanton	-	Despreter Hardhat and Scabe Diving	Life Support Systems	Communication Systems	Physiological Monitoring, First Aid, and Lifesaring	
	Pre-Vocational and Exploratory	7.8-9										Underwater	Construction	and sales	<i>/</i>								
	Elementary Education	1-2-3-4-5-6	Sights & Sound	What Are The Occupations?		Who Works	in These	Occupations/		•	Strde Of	People?			Who Do People	Work With?			These Jobs?		Non- Do These	Accomplish Their John?	



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Demioped By: USOL/DVIE  Orati  Revised  DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year Collegs	Or <b>M</b> Græ)	
Cluster for Devotion Cluster for MARINE SCIENCE OCCUPATIONS	Skill Development and Related Anowiedge	10-11-12		Construction Tender Vessel Operation Underwater Rigging Underwater Underwater Welding, Cetting, Fastening and Assembly	Construction Underwater Ancholing, Stabilizing, Cabling, and Marking Systems Sabmarine Piping and Pumping Systems Underwater Repair and Waintenance	Undermiter Salvage by Air Tank Floatstion Salvage by Diring and Recovering Salvage Salvage Law and Regulation Undermiter Demotition Design.	Placement and Detoriation	
	Pre-Vocational and Exploratory	7-8-9			Underwater Construction and Salvage			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Worts in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Oo They Accomplish Their Jobs?

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Developed By: USQE/DVTE Draft Revised	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupationa! Skill Training	Ac-anced Education (4-Year College	Or More)	
Cluster for Devisored Communication and MEDIA Revisor	nent and wiedge	7.8.9		Management  Versonnel and Labor Relations  Communications	Operations Operations Operations Operations	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Development Career Orientation	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Oo They Accomplish Their Jobs?



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Cluster for Daveloped By COMMUNICATION AND MEDIA	Skill Development and Related Knowledge	10-11-12		Granhie Ade.		Commercial Art Animation		
	Pre-Vocational and Exploratory	7-8-9			Publishing			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Cluster for COMMUNICATION AND MEDIA	Pre-Vocational and Skill Development and Reploratory	7-8-9		Lithography, Photography and Plate Making Photographic Reproduction Commercial Photography	Audio/Visual  Darkroom Processes  Industrial Electronics Systems Audio Systems	Signs Painting Signs/Sysbols, Design. Production Advartising Servicing/Fabrication	Equipment Design Research and Development Production	
	Elementary Education	1-2-3-4-5-6	Sights & Scund What Are The Occupations?	Who Works In These Occupations?	What is tife Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DYTE	Remsed DATE 4/1/71	Options After Grade 12			Job Placement	Apprenticeship and	Adult Education			Post-Secondary	Occupational California				Advanced	Education	(4-Year College Or More)				
Cluster for	COMMUNICATION AND MEDIA	Skill Development and Related Knowledge	10-11-12			Electronics Systems	Electromechanical Systems	Radio/Television	Redio and I.V. Servicing  Broadcasting	Radio and Television Announcing		Electronics Systems	Satelitte Trans-	mission mission framition Commission	Faderal Communications		Electronics Systems	V	Space Communications		
		Pre-Vocational and Exploratory	7-8-9									Broadcasting									
		Elementary Education	1-2-3-4-5-6	44	What Are The Occupations?	Who Works	In These Occupations?			What is Life	People?			Who Do People	Work With?			Where Are	These Jobs?	How Do They	Their Jobs?



Developed By: USOE/DVTE Draft Ravised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for COMMUNICATION AND MEDIA	Skill Development and Related Knowledge	16-11-12		Systems Programming Computer and Console Opeations	Telegraph  Telegraph  Installing and Waintenance	Telephone Telephone Telephone Line and Cable Splicing Telephone and PBX Installation Maintenance	
	Pre-Vocational and Exploratory	7-8-9			Line Communications		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenteesnip and Adult Education	Post-Secondary Occupational Skill Training	Advanced	(4-Year College Or More)	
BUSINESS AND OFFICE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Interpret Instruct Officer Supervisor	Wonitor Evaluation Office Standards	Office Manager Regotiation Evaluation Personnel and Related Work	Fiscal Manager  Data-Methods Analysis Systems-Procedures Analysis	Entrepreneurship Independent Operation Partnership	Corporation Franchise Operation
	Pre-Vocational and Exploratory	7-8-9			Administrative		Business Ownership	,
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USGE/DVTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	(4-Year College Or More)
Cluster for Business and office occupations	Skill Development and Related Knowledge	10-11-12		Report and Record Compilation Typing Activity Office Clerk Cash Receiving and Distribution Mail Processing	Clerk Typist Record and Report File Control	Machine Transcriber Information Recording Information Distribution	Operator  Operator  Operator  Store and Retrieve Information
	Pre-Vocational and Exploratory	7-8-9			Clerical		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do Pecple Work With?	Where Are These Jobs?



How Do They Accomplish Their Jobs?

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Developed By: USOE/DVTE Draft Revised OATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	Or More	
Cluster for Developed By BUSINESS AND OFFICE OCCUPATIONS Revised Revised OATE 4.	Skill Development and Related Knowledge	10-11-12		Management Personnel and Policy Administration  Data Interpretation  Personnel and Labor Relations  Communications	Operations Techniques  Data Handling Task Analysis Correction Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development	
	Pre-Vocational and Exploratory	7-8-9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Oraft Revised OATE 4/1/71	Options After Grade 12		Job Placement		and Adult Education		Post-Secondary Occupational Skill Training	Advanced Education (4-Yes: College		
Cluster for BUSINESS AND OFFICE OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Accountant Cost Analysis Auditing	Tax Analysis	Bookkeeper Reporting Data Transfer	Systems Analysis Decign Summarize	Computer Analyra Programmer Diagram Language Conversion	Computer Opeator Assimilation	Editing Editing
	Pre-Vocational and Exploratory	7-8-9					Record Systems and Control			
	Elementary	1-2-3-4-5-6	Sights & Sound	Occupations?	Who Works In These	Occupations?	Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Draft	Revised DATE 4/1/71	Options After	Grade 12		
Cluster for	ND OFFIC	Skill Development and	Related Knowledge	10-11-12	
		Pre-Vocational and	Exploratory	7.8-9	
		Elementary	Education	1-2-3-4-5-6	

Job Placement	Apprenticeship and Adult Education	Post-Secondary Decupational Skill Training	Advanced	Or More)	
	Information Processing Scheduling and Reporting Records Control Public Relations	Secretarial Secretary Specialist Records Control (Executive Legal		Stenographer Information Recording Information Distribution	
Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work Kith?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DYTE Draft Revised PATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Traming	Advanced Education (4-Year College	Or More)		
Cluster for MARKETING AND DISTRIBUTION OCCUPATIONS	Pre-Vocational and Skill Development and Exploratory	7.8-9		Management Data Interpretation Personnel and Labor Relations Communications	Operations  Operations  Data Handling  Task Analysis  Communication Skills	Supervision Procedures Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development Career Orientation		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?	



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Developed By. USOE/DVTE Orati Revised	Options After Grade 12					Apprenticeship and	Adult Education		Post-Secondary	Occupational				Advanced	(4-Year College	Or More)						
Cluster for MARKETING AND DISTRIBUTION OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		General Merchandise Group	Retail Trade Specialty Stores		Merchant Wholesaling	Wholesale Trade Farm Products Assembly	Petrokum Plants and Terminals		loging	Basiness Services	Service Imdes Auto and Miscellaneous Repair and	Services	Travel, Recreation and Entertainment	Automatic Merchandising	Mort-Store	Direct Selling	erternational Foreign (Darations	$\bigvee_{}$		
	Pre-Vocational and Exploratory	7-8-9									Marketing	Hairefe										
	Elementary Education	1-2-3-4-5-6	Sights & Sound	What Are The	Occupations?	Who Works	In Inese Occupations?		What is life	Prople?		_	Who Do People	Work With?		Where Are	These Jobs?			NOW DO Shey Accomplish	Their Jobs?	



Orte 4/1/71	Options After Grade 12		Job Plesement	Apprenticeship and and Adult Education	Post-Secondary Occepational Skill Training	Advanced Edacation (4-Year Collega	Or More)	
MARKETING AND DISTRIBUTION OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Industrial Production and Engineering Selling Business Operations	Trade Selling Wholesale Resale Home and Institutional Resale	Consumer Selling Automotive, Transportation and Petrokeum Products Automotive, Transportation and Petrokeum Products	Industrial Perchasing Procedures Vendor Relations	Buying for Chain Operations Resale Independent Operations	Procurement Bid Advertisament Direct Regotation
HA	Pre-Vocational and Exploratory	7-8-9		Slace and	Services		Buying	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By USOE/DVTE Draft Revised DATE 4/1/71	Options After		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College the More)		
Cluster for MARKETING AND DISTRIBUTION OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Advertising Organizations  Display Houses Windows and Interiors	Public Customer and Community Services Relations Publicity	Freduct Transport Transport Shipping and Delivery Warehousing	Materials Handling Assembling and Marketing	
	Pre-Vocations: and Exploratory	7-8-9		Sales Promotion		Physical Distribution		
	Elementary Education	1.2.3-4-5-6	Sights & Scund What Are The Occupation i?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12		Jcb Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for MARKETING AND DISTRIBUTION OCCUPATIONS	Pre-Vocational and Skill Development and Exploratory Related Knowledge	7-8-9			Harketing Services  Finance Exchanges  Consumer Credit  Commercial Credit	Insurance Business and Property Insurance  Research Research Product Analysis and Development	
	Elementary Education	1.2.3.4.5.6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs? How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement Apprenticeship and Adult Education Cocupational Shiff Training Advanced Education (4-Year College Gr More)
Cluster for PUBLIC SERVICE	Skill Development and Related Knowledge	10-11-12	Revenue Bonds Fees  Disbursement Institutional Support Institutional Support  Planning & Community Relations  Community Relations  Urban Renewal  Lebnical Assistance  Labor Relations  Labor Relations  Rouds  Coordination  Rouds  Reseation  Re
	Pre-Vocational and Exploratory	7-8-9	Financial Urban Development
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations? Who Works In These Occupations? Style Of People? Who Bo People Where Are These Jobs? How Do They Accomplish Their Jobs?



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Developed By: USDE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Pisement			Apprenticeship	and Adult Education			Doet Cacondan	Occupational	Still Training			Advanced	Education (4-Year College	Or More)					
Cluster for Developed Draft PUBLIC SERVICE Revise DATE	Skill Development and Related Knowledge	10-11-12			Planning and Policy Administration		Management Personnel and Labor Relations	Communications	Operations Techniques		Task Analysis	Communication Skills	Operational Procedures	Creamieinn Processing Techniques		Communication Skills	Personnal Practices	Communication Skills	Career Orientation			
	Pre-Vocational and Exploratory	7.8.9										Onerations										
	Elementary Education	1-2-3-4-5-6	Sights & Sound	What Are The Occupations?	,		Who Works	Occupations?		What Ic life	Style Of	People?	•	Who Do Pennie	Work With?		•	These Jobs?		How Do They	Their Jobs?	

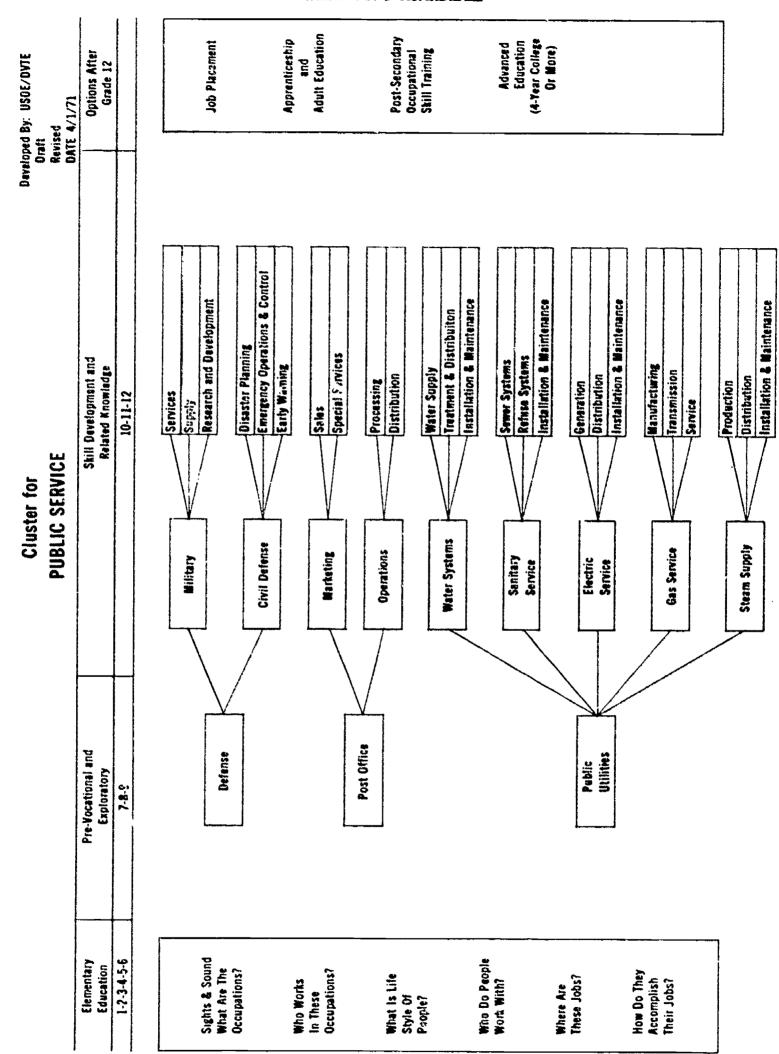


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Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12	AND	Job Placement  Apprenticeship	Adult Education Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for PUBLIC SERVICE	Skill Development and Related Knowledge	10-11-12	Financial Insurance Savings and Loans	Public Records  Birth  Warriage  Death  Titles and Deeds	Licensing Institutional Institutional Vehicular Customs and Immigration Inspection Plant & Animal Inspection	Facilities Purchasing Waintenance
	Pre-Vocational and Exploratory	7-8-9		Regulatory	Services	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations? Who Works	in These Occupations? What Is Life Style Of People?	Who Do Prople Work With? Where A:e	These Jobs? How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for Oratt	Skill Development and Related Knowledge	16-11-12	Instruction Counseling Supervision Support Activities	Transportation Transport Service	Extension Services Consumer Services Homemaking Services Homemaking Services Inspection Accident Prevention Special Services	Land, Air & Water Patrol Community Relations Transmitting and Receiving Fixed and Mobile Stations Services	Maintenance Police Equipment Police Equipment Electronic and Other Equipment
	Pre-Vocational and Exploratory	7-8-9		Education	•	Police & Fire	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These	What is Life Style of People?	Who Do People Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?







Developed By: USOE/DYTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for Oracle By Daveloped By Daveloped By Distract Construction	Skill Development and Related Knowledge	10-11-12	Institutional Care   Marrial Hospitals   General Hospitals	Community Services Community Health Centers Home Health Care	Food and Druz	Employment Services Counseling and Testing Placement	Employee Worker Compensation  Compensation  Safety and Health  Kinimum Wage  Safety and Special Groups
	Pre-Vocational and Exploratory	7-8-9		Public Health			Labor Affairs
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The	Occupations? Who Works In These Occupations?	What is Life Style Of People?	Who Do Peaple Work With? Where Ace	These Jobs? How Do They Accomplish Their Jobs?



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Post-Secondary Occupational Skill Training Adult Education Education (4-Year College Or More) Apprenticeship Job Placement Advanced Options After Grade 12 Developed By: USOE/DVTE Oraft Revised DATE 4/1/71 Inland Waterways Operation Tempike & Toffridges
Registration & Licensing
Inspection Engineering & Inspection Design & Construction Electronic & Electric Airports & Terminals Bridges & Tunnels Bridges & Tunnels Land Acquistion Care of Rightway Still Development and Port Authorities Buses & Trucks Toll Collection **Fraffic Control** Related Knowledge Landscaping Equipment Rapid Transit Road Repair Kaintenance Maintenance Maintenance Installation Planning Raikoads 10-11-12 PUBLIC SERVICE Cluster for Design & Construction Toll & Traffic Control 219 Water Control Air Public Transportation Highways Pre-Vocational and Exploratory 7.8.9 Who Do People Work With? 1-2-3-4-5-6 Elementary Sights & Sound Education What Are The Occupations? Occupations? What is Life Style Of People? Where Are These Jobs? How Do They Accomplish Their Jobs? Who Works In These

Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Applemineship and Adult Education	Fost-Secondary Occupational Skill Training	Advanced Education (8-7-024 College Or More)	•
Cluster for Develo	Skill Development and Related Knowledge	10-11-12	Children & Foster Homes Youth Youth	Adult to the Aging Vocational Rehabilitation	Family Support Community and Neighborhood Outreach Consumer Affairs	Courts Legal Services Legal Services Court Services Probationary Services	Penal Prison Industries Institutions Education & Related Activities
	Pre-Vocational and Exploratory	7-8-9		Social and Rehabilitation		Courts & Corrections	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People? Who uo People	Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12	tradition of the second se	Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)		
Cluster for PUBLIC SERVICE	Skill Development and Related Knowledgs	10-11-12		Planiar	Development Design and Construction Operation Amusement Recreation Lodging	Maintenance Grounds and Camps Trails		
	Fre-Vocational and Exploratory	7-8-9			Parts and Recreation			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USDE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College	Or More)	
Cluster for Developed Draft Draft TRANSPORTATION Revise DATE	Skill Development and Related Knowledge	10-11-12		Management Data Interpretation Personnel and Labor Relations Communications	Mid-Management Data Handling Task Analysis Communication Skills	Supervision Personnal Relations Communication Skills	Personnel Communication Skills Skill Development Career Orientation	
	Pre-Vocational and Exploratory	7.8.9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for TRANSPORTATION	Skill Development and Related Knowledge	10-11-12	Vehicle Operation Agents and Clerks Security and Inspection Signals Systems	Suburban Fransit Equipment Maintenance and Repairs Right-of-way Maintenance and Repairs Structures Maintenance and Repairs	Vehicle Operation Agents and Clerks Security and Inspection Freight Handlers Transportation Biscarchine Swatems	Equipment Maintanance and Repairs Structures Maintanance and Repairs Passanger Service Freight Service	Reil Transportation Transportation Security and Inspection Signals Systems Rolling Stock Maintenance Repair Way and Structures Maintenance and Repairs
	Pre-Vocational and Exploratory	7-8-9			Land Transportation		
•	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Sayle Of People?	Who Do People Work With?	These Jobs? How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship	and Adult Education		Post-Secondary Occupational		Education (4-Year College Or Nore)		
Cluster for Transportation	Skill Development and Related Knowledge	10-11-12		Commercial Aviation Flight Crew	Commercial Aviation		General Aviation	General Aviation Ground Support Activities Aircraft Maintenance Airport Facilities Operations	Spacecraft Air to Surface Air to Surface Air to Surface Air to Surface	Transportation Surface to Air Launch Operations Landing Operations	
	Pre-Vocational and Exploratory	7-8-9						Aerospace Transportation			
	Elementary Education	1.2.3-4.5-6	Sights & Sound What Are The	Occupations?	Who Works In These	Occupations?	What is Life	Who Do People	Where Are	These Jobs?	How Do They Accomplish Their Jobs?



Drveloped By: USOE/DVTE Draft Revised OATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for TRANSPORTATION	Skill Development and Related Knowledge	10-11-12			Liquid and  Gas Iransmission Pipeline and Tank Farm Operation Pipeline and Tank Farm Maintenance Solids	Transmission Pipeline and Tanking Maintenance	
	Pre-Vocational and Exploratory	7-8-9			Pipeline Transmission		
	Elementary Education	1.2.3.4.5.6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People?	Who Do People Work With? Where Are These Jobs?	How Do They Accomplish Their Jobs?



		Cluster for TRANSPORTATION	Developed By: USOE/DYTE Oraft Revised DATE 4/1/71
Elementary Education	Pre-Vocational and Exploratory	Skill Development and Related Knowledge	Options After Grade 12
1-2-3-4-5-6	7-6.9	10-11-12	
Sights & Sound What Are The Occupations?			Job Placement
Who Works in These Occupations?		Riverboat and Barge Operation  Deck Department Inland Engineer Department Water Stewards Department	Apprenticeship and Adult Education
What is Life Style Of People?	Water	ortation	Post-Secondary Occupational Skill Training
Who Do People Work With?		Operations  Ocean Water  Transportation  Stewards Department  Stewards Department	Advanced Education (4-Year College
Where Are These Jobs?		Merchant Marine Seamen Piloting	Or More)
Mow Do They Accomplish Their Jobs?			



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Developed By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occurational Skill Training	Advanced Education	Or More)	
Cluster for PERSONAL SERVICES OCCUPATIONS	Skill Development and Related Knowledge	10-11-		Management Data Interpretation Personnel and Labor Relations Communications	Mid-Kanagement Data Handling Task Analysis Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development	
	Pre-Vocational and Exploratory	7-8-9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People?	Who Do People Work With?	Where Are These Joins?	How Do They Accomplish Their Jobs?



Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement		Apprenticeship and Adult Education		Post-Secondary Occupational Skill Training	,	Advanced Education	(4-Year College 0r Morz			
Cluster for Personal Services Occupations	Skill Development and Related Knowledge	10-11-12		Analyzing and Counseling on Weight Problems	Services on Human Reducing Studio Equipment Weight Control Directing and Guidance of Physical Exercise Activities	Analyzing, Counseling, and	Message and Programing of Individual Related Services Treatment	Operating and Maintaining Massaging Equipment	Establishing and Equipping Studio	Owning and Operating Establishment	Entrepreneurship Analyzing and Managing of Finances and Records	Advertising and Sales Cestodial Operation and	Maintenance of Stadio
	Pre-Vocational and Exploratory	7-8-9						Physical					
	Elementary Education	1.2.3.4.5.6	Sights & Sound	What Are The Occupations?	Who Works in These	recupations	What Is Life Style Of Panola?		Who Do People Work With?	_	Where Are These Jobs?		How Do They Accomplish Their Jobs?



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Developed By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12	41.00	Job Placement	Apprenticeship end Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	Or More)	
Cluster for PERSONAL SERVICES OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Shampooing Hair Styling Shaving and Facial Treatment Special Services Onemations	Styling and Restoration of Hairpieces Establishing and Equipping	Owning and Operating  Establishment Analyzing and Managing of Finances and Records	Advertising and Sales Cestodial Operation and Maintenance of Shop	
	Pre-Vocational and Exploratory	7.8-9			Barbaning			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Uthers Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12	A DESCRIPTION OF THE PROPERTY	Job Placement		Apprenticeship	Adult Education		Post-Secondary Occupational Skill Training		Advanced Education	Or More)		
Cluster for PERSONAL SERVICES OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Embalming or Cremating Transporting	Mortuary Services Pathological Examinations	Personal Relations Family Members	Contractual Embaiming and Restoration Art Treatment	Planning and Arranging for Special Functions	Home Functions Ushering and Services Displays and Sales	Establishing and Equipping	Funaral Home Ouning and Operating Establishment	Entrepreneurship Analyzing and Managing of Finances and Records	Advertising and Sales Cestodial Operation and Maintenance
	Pre-Vocational and Exploratory	7-8-9						Mortuary	Science				
	Elementary Education	1-2-3-4-5-6	Sights & Sound	Occupations?	Who Works	in These Occupations?		What is Life Style Of People?	Who Do Pagie	Work With?	Where Are	These Jobs?	How Do They Accomplish Their Johs?



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Developed By: USGE/DVTE Oraft Revised DATE 4/1/71	Options After Grade 12	14 222	Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for Develo  PERSONAL SERVICES OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Stampooing Hair Styling Facial Treatment Operations Manicuring Scalp and Skin Treatment	Services Styling and Restoration of Mairpieces Maintenance of Tools, Equipment and Supplies	Theatrical and Selecting and Application of Selecting and Application of Wate-up for Specific Medium Wate-up Technology Wate-up Reintaining Products and Supplies	Product Testing Color Testing of Products and Analyzing Products Selectivity Demonstrating of Products and Sales	Establishing and Equipping Shop  Owning and Operating Establishment  Analyzing and Managing of Finances and Records Advertising and Sales  Custodial Operation and  Maintenance of Shop
	Pre-Vocational and Exploratory	7-8-9			Cosmetalogy		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Lifo Style Or People?	Who Do People Work With? Where Ase	These Jobs? How Do They Accomplish Their Jobs?



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Developed By: USDE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12			Job Placement		Apprenticeship	Adult Education			Pout Secondary	Occupational Skill Training				Fducation	(4-Year College								A Company of the Comp
Cluster for PERSONAL SERVICES OCCUPATIONS	Skill Development and Related Knowledge	10-11-12	Shampooing Animals	Grooming and Exercising	7	Mortuary Care of Animals	Providing Physical Care of	and	Services Exercising	7		Screening and Selecting of Animals	Pr	Underlies Hamilie Placing and Supervising	Evaluating Performance	Sales	Establishing and Operating	Pet Shop	Statistics Equipping, and Contact Cont	or Kassel	Entrapeneurship Advanceing and Sales	Analyzing and Wanaging of Finance and Barnoth	Cestodial Operations and	Maintenance of Shop or Center of Kennel
	Pre-Vocational and Exploratory	7.8-9											Pet Services								•			
	Elementary	1-2-3-4-5-6		Sights & Sound What Are The	Occupations?		Who Works In These	Occupations?		What Is Life	Style Of	, action		Who Do People	Work With?		Where Are	These Jobs?		How Do They	Accomplish	Their Jobs?	<del></del>	



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Developed By: USOE/DYTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	Or More)	
CONSUMER AND HOMEMAKING—RELATED OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Management Data Interpretation Personnel and Labor Relations Communications	Mid-Management Data Handling Task Analysis Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Development	
USNOO	Pre-Vocational and Exploratory	7-8-9			Operations			
	Elementary, Education	1.2.3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Draft	Revised DATE 4/1/71	Options After Grade 12		Job Placement	A na se	and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)
Cluster for Date	CONSUMER AND HOMEMAKING—RELATED OCCUPATIONS  DATE 4	Skill Development and Related Knowledge	10-11-12	Weny Planning and Controlling Cost	Production and Operating Food Storage and Inventory Production and Operating Food Preparation Reminent	]/	Service and Delivery  Service and Delivery  Serving Food  Packaging Food  Delivery of Food	Testing and Product  Experimental Testing of Food  Evaluating Recipes  Evaluating Recipes  Food Demonstration
	CONSUN	Pre-Vocational and Exploratory	7.8-9				Food Service Industry	
		Elementary Education	1-2-3-4-5-6	Sights & Sound	Mist Res the Occupations?	Who Works These secupations?	What is Life Style Of People?	Who Do People Work With? Where Are These Jobs?

Analysis of Dietary Needs
Menu Planning in Relation to
Dietary Needs
Counseling re Nutritional Needs
Teaching Nutrition

Hutrition

How Do They Accomplish Their Jabs?



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Developed By: USOE/DYTE  Oraft Pavised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship	and Adult Education		Post-Secondary Occupational Skill Training	Advanced Education (4-Year College	are M	
CONSUMER AND HOMEMAKING—RELATED OCCUPATIONS	Skill Development and Related Knowledge	10.11.12			Production and Marking and Assembling Management Serving and Stitching	Pressing Inspecting and Checking	Design Creating and Designing Garments Patternmaking C. dding Pattern	Clothing Alteration  and Maintenance Repairing Attention		Demonstrating Design or Product
COMSUME	Pre-Vocational and Exploratory	7.4.9					Clothing, Apparel, and Textile Industry			
	Elementary Education	1-2-3-4-5-£	Sights & Sound What Are The	occupations (	Who Works In These Occupations?		What is Life Style Of People?	Who Do People Wort With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	:	Apprenticeship and Adult Education		Poet Secondary	Occupational	Skill Training			Advanced	Education	(4-Year College Or More)				
CONSUMER AND HOMEMAKING—RELATED OCCUPATIONS	Skill Development and Related Knowledge	10-11-12		Caning for Physical Needs of Child Protecting the Child	Care Homes Compliance with Regulations	Adjusting Household to Meeting Needs of Child	Providing Physical Care of Children		Z PE	Care Services Uningren with Varying Needs	Supervision of Children	0 1. 11 1. 10. 1.	Cenng for Paysical Meeos of Children	Planning and Scheduling for Children's Activities	Community Child Directing Children's Activities	Guidance Services	Housekeeping and Maintenance	Operating, Management, and Supervision
CONSUM	Pre-Vocational and Exploratory	7.8-9		•					Child Care.	Guidance, and Teaching								
	Elementary Education	1.2.3.4.5.6	Signts & Sound What Are The	Occupations?	Who Works	in inese Occupations?	1 to	Style Of	People?		Who Bo People	Work With?			Where Are	inese Jones.		How Do They Accomplish Their Jobs?



ueveloped By: USUL/UVIE Draft Revised Date 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Gewpational Skill Training	Advanced Education (4-Year College Or More)	
CONSUMER AND HOMEMAKING—RELATED OCC !! PATIONS	Skill Development and Related Knowledge	10-11-12	Public Housing Housekesping and Household Maintenance Consumer Counseling	Social Welfare Family Planning Counseling Consumer Counseling Assisting the Aging	Household Maintenance and Care of Furnishings and Haintenance and Care of Furnishings and Household Equipment Selecting Equipment and Supplies	Institutional Window Waintenance Waintenance Furnishings and Equipment Waintenance Checking and Inspecting	Analysis of Market for Cleaning Supplies and Equipment Comparative Testing Evaluation of Results Communicating Recommendations
CONSUM	Pre-Vocational and Exploratory	7-8-9		Family and Community Services		Institutional Household Maintenance Services	
	k.ic. sentary Fdiscation	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	These Jobs? How Do They Accomplish Their Jobs?



Elementary Education 1-2-3-4-5-6				DATE 4/1/71
1-2-3-4-5-6	Pre-Vocational and Exploratory	Skill Development and Related Knowledg:	it and dge	Options After Grade 12
	7-8-9	10-11-12		
Sights & Sound		Identifying Far	Identifying Family Goals, Valves,	Job Placement
What Are The Occupations?		and Standards Decision Making	rds	<del> =</del>
-			Identifying and Planning of Household	
		Home Maragament Casts Develoning M	Tests Developing Homemating Skills	Apprenticeship
Wild Works				
occupations?		Organizing, impleme Plan of Operation	Viganzing, implementing, and Adjusting Plan of Operation	YORK FORESON
		Evaluating Res	Evaluating Results from Operations	
What is Life		Assessment of Needs	f Meeds	Post-Secondary
Style Of	UNI KOIS	Comparative A	Comparative Analysis of Products	Occupations
People?	Inter-Changable		Decision Making and Utilization of	
	Technician for	Consumerism		
	Homemaking	Purchasing		
The De People		Utilization of Product	Product	
		Evaluation of Product	Product	Education
			Becare mant of Individual and Samits	(4-Year Collegs
Where Are		Inde		0r #6078)
These Jobs?		Identifying Ind	Identifying Individual and Family	
		ly ly	Goals, Values, and Standards	
		Relationship: Developing Fela	Developing Estationship and Problem Solving Skills	
Accomplish		Martering of F	Martering of Family Members	
Their Jobs?		Communication	8	··



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Developed By: USCE/DVTE Draft Revised DATE 4/1/71	Options Afte: Grade 12		F Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	(4-Yest College Or More)	
Cluster for Developed Consumer and Homemaking—Related Occupations	Skill Development and Related Knowledge	10-11-12	Design and Interior Designing and Planning  Occuration  Counseling on House Design and		Selectivity Accessories Selection of Household Equipment	Refunishing and Refinishing Furniture Refinishing Repairing Furniture	Serviceability Testing of Furnishings Comparative Testing of Household Equipment Counseling on Home Furnishings and Equipment	Demonstration on Home Furnishings and Equipment
CONS	Pre-Vocational and Exploratory	7-8-9			Mousing Design.	tion		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of Peogle?	Who Do People Work With?	Where Are These Jobs?	How Oo They Accomplish Their Jobs?



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Cluster for	RECREATION AND HOSPITALITY (TOURISM)	Skill Development and Related Knowledge	10-11-12	Research	Recreation and Planning  Construction  Landscaping	Financing	Oceans, Beaches, Estuaries, & Uther Water Bodies	Ranges, Forests, Deserts, & Other Lands	Ratural Resource Wilderness Areas	Development Ratural Worders Parks Parks Camps and Camping Areas Zoos and Aquariams	Vacation Homes, Apt's, Condominiums Resorts, Hotels, Estadominiums	Leisme-Related Property. Facilities-Ski, Marina, etc. Equipment Lessing and Sares Entrepreneurship Concessions and Restrurants Maarhating, and Promotion Product Waarfacturing & Distribution
		Pre-Vecational and Exploratory	7-8-9						Environmental	Warrage ment		
		Elementary Education	1 4.34.5-6		What Are The Occupations?	Who Works	Occepations?		What is tife Style Of Prople?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USGE/DYTE Orafi Revised DATE 4/1/71	Options After		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced	(4-Year College Or More)	
Cluster for RECREATION AND HOSPITALITY (TOURISM)	Ski?! Development and Related Knowledge	10-11-12		Data Interpretation  Data Interpretation  Personnel and Labor Relations  Communications	Operations Techniques  Mid-Management Tash Manysis Communication Skills	Supervision Processing Techniques Personner Relations Communication Skills	Personnel Practices Communication Skills Skill Development	
	Pre-Vocational and Exploratory	7-8-9			Operations			
	Elementary Education	1.2.3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style O: People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Draft Revised OATE 4/1/71	Options After Grade 12		Job Placement Apprenticeship and Adult Education Occupational Skill Training Education (4-Year College Or More)
Cluster for RECREATION AND HOSPITALITY (TOURISM)	Skill Development and Related Knowledge	10-11-12	Public Government  Public Housing Recreation  Readrification  Armed Forces Recreation  Armed Forces Recreation  Armed Forces Recreation  Freshool Play and Day Care  In-School Play and Day Care  In-School Play and Day Care  Church Recreation  Employee Recreation
	Pre-Vocational and Exploratory	7.8.9	Community Services
	Elementary Education	1.2.3-4-5-6	Sights & Sound What Are The Occupations? Who Works In These Occupations? What is Life Style Of People? Who Do People Work With? Where Are These Jobs? How Do They Accomplish Their Jobs?



Devaloped by: USUE/DVF: Draft Revised DATE 4/1/71	Options After Grade 12			Job Placement		pue	Adeit Education		Post-Secondary Occupational	Skill Training		Education	Or More)		_			
Cluster for RECREATION AND HOSPITALITY (TOURISM)	Skill Development and Related Knowledge	10-11-12	Recreation Activities Instruction	Education Community School Recreation	Extension Reseation	Physical Recreation Programs	Movement Sports and Athletic:	Coaching Children's Game	Graphic Printing, Silk Screen	Performing—Acting, Instrumental	Composition	Social—Eliquette, Entertaining,	Photographic-Filming, Processing	Celebrators, Festivals, and Fairs	Special Cultural Programs-Indian, Black, Youth, etc.	Historic Preseration/Interpretation	Crative Writing	
<b>&amp;</b>	Pre-Vocational and Exploratory	7-8-9								Haman Development								
	Elementary Education	1-2-3-4-5-6		Signis & Sound What Are The Occupations?		Who Works	Occupations?		What is Life Style Of	People?	Who Do People Work With?		Where Are	These Jobs?		Secondish	Ineir Jobs?	



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Cluster for RECREATION AND HOSPITALITY (TOURISM)	Skill Devalopment and Related Knowledge	10-11-12
œ	Pre-Vocational and Exploratory	7-8-3
	Elementary Education	1-2-3-4-5-6

Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education	Or More)	
	Media Utilization Tomism and Recreation Promotion	Mobility  Travel Agencies  Croun Travel Carving		Spatial Geography and Planning	
Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Geveloped By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)	
Cluster for RECREATION AND HOSPITALITY (TOURISM)	Skill Development and Related Knowledge	10-11-12		Recreation Sanitation Recreation Sanitation	Preventive Health Leisure Consumerism Leisure Product Testing/Controls Physical Fitness Programs Counseling Cot: rate Recreation Programs	Therapertic Recretion  Therapertic Recreation  Correctional Recreation  Dirg Therapy	
	Pre-Vocational and Exploratory	7-8-9			Heath Care		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Bo People Work With? Where Are	These Jobs? How Do They Accomplish Their Jobs?



Developed By: USOE/DVTE Oraft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Appremiceship and and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College	(e.a.)	
Cluster for FINE ARTS AND HUMANITIES	Skill Development and Related Knowledgs	10-11-12		Management Data Interpretation  Data Interpretation  Personnel and Labor Relations  Communications	Mid-Management  Data Handfing  Task Analysis  Communication Skills	Supervision Processing Techniques Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development Career Orientation	
	Pre-Vocational and Exploratory	7-8-9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of Pecple?	Who Do People Work With?	Where Are These Johs?	How Do They Accomplish Their Jobs?



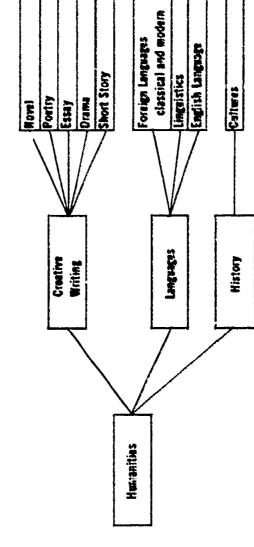
BEST COPY AVAILABLE (4-Yest College Or More) Adult Education Advanced Education Post-Secondary Apprenticeship Job Placement Occupational Skill Training Options After Grade 12 Developed By: USOE/DVTE Revised DATE 4/1/71 film and tape editing
Film processing
Comera and recording operation Haman relations-performing Industrial design Fashion design Enriconnental design Stage set design Stage lighting design Stage set construction and non-performing Costums production Stage management Musical composition Film-radio-television Costume design Public relations Skill Development and Related Knowledge Dramatic Arts Stage lighting Printmaking Ilhestration Sculpture Painting 10-11-12 Dance Dance Masic FINE ARTS AND HUMANITIES Cluster for Visual and Graphics Artist Wanagement Performing Arts Design Performing Arts Production Performing Creating Hedia Dasip Pre-Vocational and Fine Arts Exploratory 7-8-9 Sights & Sound What Are The Who Do People Work With? 1-2-3-4-5-6 Elementary Education How Do They Accomplish Their Jobs? Occupations? Occupations: Where Ase These Jobs? What is Life Who Works



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Edecation
(4-Year College
Or More) Post-Secondary Apprenticeship Job Piacement Occupational Skill Training Options After Demioped By. USOE/OVTE Grade 12 Orati Revised OATE 4/1/71 Foreign Lenguages classical and modern linguistics English Language Skill Development and Related Knowledge Fortry
Essay
Drama
Short Story Cafteres 10-11-12 More FINE ARTS AND HUMANITIES Cluster for



Who Do People Work With?

Where Are These Jobs?

How Do They Accomplish Their Jobs?

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What is Life Style Of People?

Who Works In These Occupations?

Sights & Sound What Are The Occupations?

Pre-Vocational and Exploratory 7.8-9

1.2.3.4.5.6

Elementary

Education

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Demloped By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Piscament	Appranticeship and Adult Education	Post-Secondary Georgational Skill Training	Advanced Education	0r More)	
Cluster for Demioped Date MANUFACTURING Revise DATE DATE	Still Development and Related Anomicale	10-11-12	•	Management Deta Interpretation  Deta Interpretation  Personnel and Labor Relations  Communications	Mid-Managazamt  Data Harding  Tass Analysis  Communication Skills	Supervision Processing Techniques Processing Techniques Personnel Relations Communication Skills	Personnel Communication Skills Skill Gerelopment	Career Urientation
	Pre-Vocational and Exploratory	7.4.9			Operations			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is life Style Of People?	Who Do People Work With?	Where Are These Johs?	Haw Do They Accomplish Their Jobs?



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Developed By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12		Joh Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year Collegs Or More)		
Cluster for Developed By Draft Draft Revised MANUFACTURING Revised Date 4.	Pre-Vocational and Skill Development and Replaced Knowledge	7.4.9		Model Development	Product Prototype Testing Packaging Component/Material Flow Systems Assambly Line Systems Cybernetics	Foundry Operations Electromechanical Systems Machine Operations		
	Elementary Education	1.2.3-4.5.6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Ave These Jobs?	How Do They Accomplish Their Jobs?



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Developed By. USGE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12	3.	Job Placement	Apprenticuship and Adrit Education	Past-Secondary Occupational Skill Training	Advanced	(4-Test College Or More)	
Cluster for Demis	Skill Development and Related Knowledge	16-11-12		Matural Vegetable Sources	Synthetic Waterines Vagable Delivatives Extractive Processes	Receiving Transportation and Storage	Waste Orthat Recycling Operations	
	Pre-Vocational and Exploratory	7.8.9			Materials			
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What is Life Style Of People/	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By. USGE/DVTE Draft Revised DATE 4/1/21	Options Affer Grade 12		Job Placement Apprenticeship and Adelt Education	Post-Secondary Occupational Skill Training	Advanced Edwation (4-Vear College Or More)	
Cluster for Development of the Control of the Contr	Skill Development and Related Knowledge	10-11-12	Processing Raterial Flow Operations Automation Component/Waterials Inspection Processing Inspection Product Inspection	Packaging Packaging Banufacturing Retailing Retailing Wholesaling Distribution	Advertising Product Promotion  Air  Transportation  Raii  Pipeline  Vessel	Warehousing Packing   Packing   Storing Inventory
	Pre-Vocational and Exploratory	7.8-9	Production		Distribution	
	Elementary Education	1.2.3-4.5-6	Sights & Sound What Are The Occupations? Who Works In These	What is Life Style Of People?	Who Do People Work With? Webrite Are These Jobs?	How Do They Accomplish Their Jobs?



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Developed By: USOE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adult Education	Post-Secondary Occupational Skill Training	Advanced Education (4-Year College Or More)		
Cluster for Da MANUFACTURING	Pre-Vocational and Skill Davalopment and Related Knowledge	7.8.9			Research Product (Bilization Processes Production Processes Quality Control	Marketing Conserner Research Product Promotion Research		
	Elementary Education	1.2.3.4.5.6	Sights & Sound What Are The Occupations?	Who Works In These Occupations?	What Is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



Developed By: USOE/DYTE Uraft Revised DATE < 1/71	Options After Grada 12		Job Placement	Apprenticeship and Adelt Education	Post-Secondary Occupational Skill Training	Advanced Edecation	Or More)	
Cluster for CONSTRUCTION	Skill Development and Related Knowledge	10-11-12		Management Data Interpretation Data Interpretation Personnel and Labor Relations Communications	Mid-Management  Data Handking  Task Analysis  Communication Skills	Supervision Processing Techniques Personnel Relations Communication Skills	Personnel Practices Communication Skills Skill Development Career Orientation	
	Pre-Vocational and Exploratory	7.8.9				Sworing		
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



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Options After Grade 12		Job Placement	Appranticeship and Adult Education	Post-Secondary Occapational Skill Training	Advenced Edecation (4-Year College Or More)		
Skill G				Architectural Commercial Industrial Industrial Landscape	Civil Electrical		
Elementary Education	1-2-3-4-5-6	phis & Sound set Are The cupations?	bo Works These cupations?	hat is Life ye of ogle?	bo Do People ort With?	here Are nese Johs?	How Do They Accomplish Their Jobs?
	Pre-Vocational and Skill Development and Exploratory Related Knowledge	Fre-Vocational and Shill Devalopment and Related Knowledge  Exploratory Related Knowledge  7-8-9 10-11-12	Exploratory  Exploratory  7-8-9  10-11-12	Explorational and Skill Development and Related Knowledge 7.4.9 10-11-12	Exploratory  Related Rooming  7.8.9  7.8.9  Architectural  Architectural  Residential  Lendstrape  Lendstrape	Previoual and Still Devicement and Raised Rowindge T-8-9 ID-11-12	Pre-Vocational and Shill Devilopment and Exploratory Related Knowledge 7-8-9 10-11-12  Architectural Commercial Commercial Landscape Chril Evertical Evertical Evertical



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Developed By: USOE/DYTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticaship and Adult Education	Post-Second.ry Occupational Skill Training	Advanced Education	(4-Year College Or More)	
Cluster for Demloped By Draft CONSTRUCTION Revised By Date 4,	Skill Development and Related Knowledge	10-11-12		Masonry Wood Glass and Plastic	Manufactured Manufactured Return Procurement Symbolics	Electric Operations Hydraelic	Office Operations  Expediting  Security Operations	
	Pre-Vocational and Exploratory	7.6-9			Contracting			
	Elementary Education	1.2.3-4-5-6	Sights & Sound What Are The Occupations?	Who Works in These Occupations?	What is Life Style Of People?	Who Do People Work With?	Where Are These Jobs?	How Do They Accomplish Their Jobs?



and Adult Education Post-Secondary Occupational Still Training Advanced
Education
(4-Year College
Or More) Apprenticeship Job Placement Options After Grade 12 Developed By: USOE/DVTE Revised DATE 4/1/71 Equipment Operations and Maintenance Hosticultural Installations Turf Installations Sprintler Systems Painting/Papering Floor Covering Lighting Fixtures Skill Development and Related Knowledge Layout Draperies Furniture 10-11-12 200 CONSTRUCTION Cluster for Grounds Kaintenance Furnishings Nursery Operations Decoration Design Landscaping Interior Pre-Vocational and Exploratory 7-8-9 Sights & Sound What Are The Occupations? Who Do People Work With? 1-2-3-4-5-6 Elementary Who Works In These Occupations? Education How Do They Accomplish Their Jobs? What Is Life Style Of People? Where Are These Jobs?





Developed By: USDE/DVTE Draft Revised DATE 4/1/71	Options After Grade 12		Job Placement	Apprenticeship and Adatt Education		Post-Secondary Occupational Shill Training	Advenced	(4-Year College Or More)	
Cluster for CONSTRUCTION	Skill Development and Related Knowledge	10-11-13	•	Site Site Layout Preparation Earth Moving Operations	Communications Gas and Electric Water	Storm Drainage	Prefabrications Prefabrication		Febrication
	Pre-Vocational and Exploratory	7-8-9			Land Development		Fabrication	Installation	
	Elementary Education	1-2-3-4-5-6	Sights & Sound What Are The Hecutations?	Who Works	Occupations?	What is Life Style Of People?	Who Bo People Work With?	Where Are These Johs?	How Do They Accomplish Their Jobs?

